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CATALOGUE

OF THE

LEPIDOPTERA PHALÆNÆ

IN THE

BRITISH MUSEUM.

VOLUME II.

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1900.

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CATALOGUE

OF THE

A R C T I A D Æ

(NOLINÆ, LITHOSIANÆ)

IN THE

C O L L E C T I O N

OF THE

BRITISH MUSEUM.

BY

SIR GEORGE F. HAMPSON, BART.

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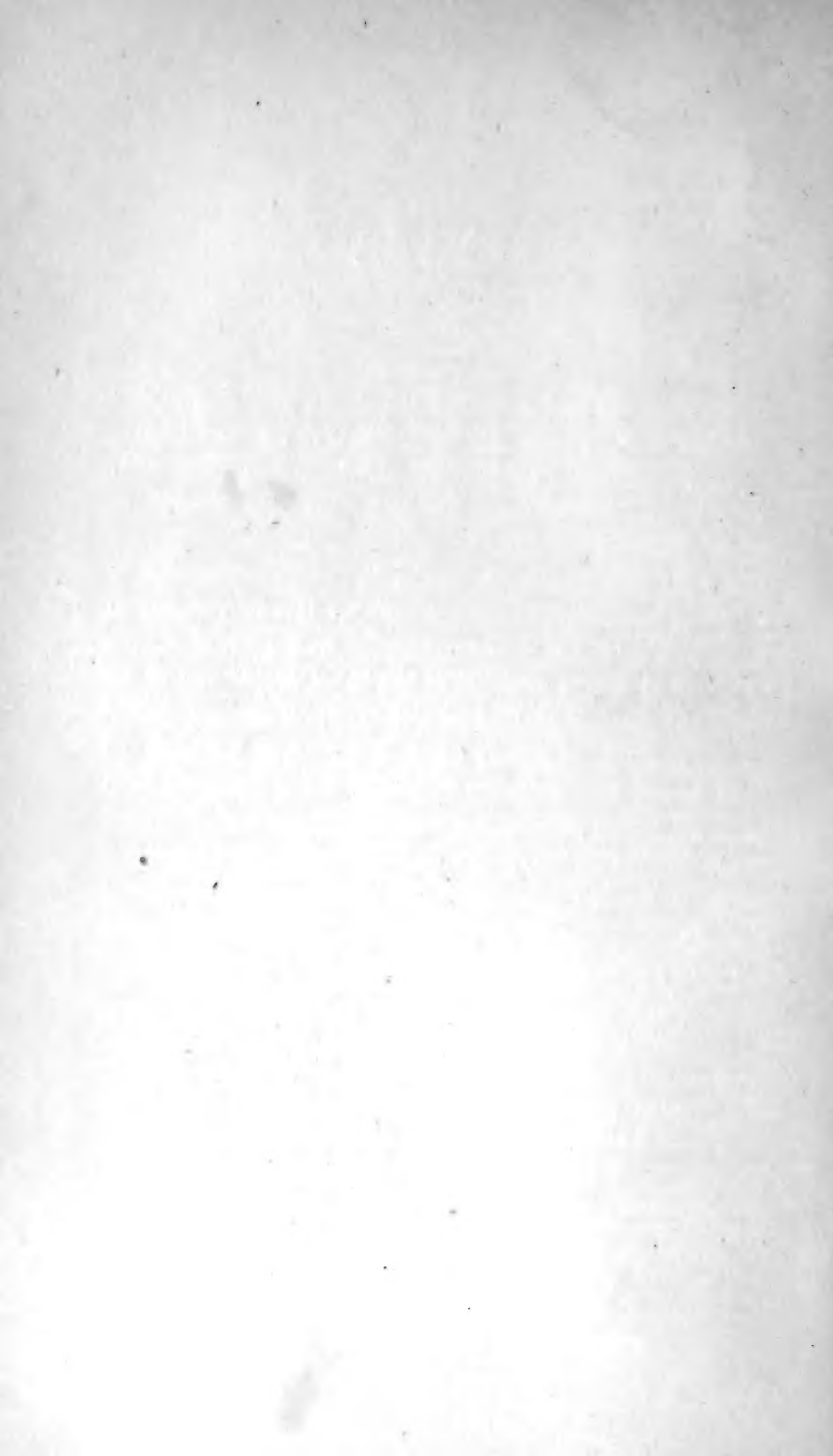
P R E F A C E.

THE subject of the 2nd volume of the Catalogue of *Lepidoptera Phalaenæ* is the family *Arctiadae*, of which 1217 species belonging to the subfamilies *Nolinae* and *Lithosiinae* are here dealt with, leaving the least specialized subfamily—the *Arctiinae*—to be classified in the 3rd volume.

I have to thank all those mentioned in the 1st volume who, by the loan of material, have again assisted Sir George Hampson in the preparation of this volume; also Herr G. Semper, of Altona, for the loan of species described by him in his *Lepidoptera* of the Philippines; Dr. J. F. M. Heylaerts, of Breda, for species described from the Malayan subregion; Dr. A. J. Turner, of Brisbane, and Oswald Lower, Esq., of Broken Hill, N. S. Wales, for species from Australia. I have great pleasure in acknowledging the assistance given to Sir George Hampson's undertaking by the Secretary of State for India, who has granted the use of all the blocks and drawings made in preparing the volumes on Moths in the Fauna of India series; this loan will materially lessen the cost of each volume of the Catalogue.

E. RAY LANKESTER,
Director.

British Museum (Natural History),
January 20, 1900.



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CATALOGUE

OF

LEPIDOPTERA PHALÆNÆ.

Family ARCTIADÆ.

Proboscis usually well developed, sometimes aborted; palpi usually short, sometimes long and porrect or upturned; antennæ ciliated or bipectinate; tibiæ with the spurs usually short or moderate. Fore wing with vein 1 *a* forming a fork with 1 *b*, 1 *c* absent; 5 from below angle of discocellulars or coincident with 4. Hind wing with veins 1 *a* & *b* present, 1 *c* absent; 5 from below angle of discocellulars or coincident with 4; 8 coincident with the upper margin of cell to near or to well beyond middle, sometimes to beyond upper angle; frenulum present; retinaculum almost always bar-shaped.

A family of Moths of small to large size derived from the Noctuidæ, from which they may be distinguished by vein 8 of the hind wing being coincident with the upper margin of the cell from base, instead of arising free and then more or less strongly anastomosing with the cell. In some species of *Automolis* vein 8 is coincident with the cell to beyond the upper angle in the males, whilst in some specimens of various species of *Eucereon*, near the point of origin of the family *Syntomidæ*, vein 8 is sometimes absent, or partially aborted, or replaced by two or three spurs between the cell and costa.

The family is divided into three subfamilies, the *Nolinæ*, *Lithosiæ*, and *Arctiæ*; the first two have the ocelli absent, the *Nolinæ* having tufts of raised scales in the cell of fore wing at base, middle, and extremity, whilst in the lowest subfamily, the *Arctiæ*, the ocelli are present, as in their ancestors among the *Noctuidæ*.

The larvæ of the *Arctiadæ* have a similar arrangement of the warts and tufts of hair to that described and figured in the *Syntomidæ*, Vol. I. p. 22; but in the subfamily *Nolinæ* the 1st pair of prolegs on somite 6 are absent: they usually feed exposed, forming a cocoon

of silk and hair, the pupa also being similar to that of the *Syntomidæ*. Three groups of genera have usually been placed in the *Arctiadæ* which should have been referred to other families—*Nyctemera* and its allies in the Old World, and *Pericopis* and allies in the Neotropical region, have vein 8 of the hind wing separate from the cell and connected with it by a bar, and should be placed in the *Hypsidæ*; whilst *Sarothripa* and the allied genera, which have been associated with the *Nolinæ*, are better placed as a parallel development in the *Noctuidæ*, having the ocelli present, vein 8 of the hind wing free at extreme base, and the larvæ having the prolegs on somite 6 present; and thirdly, *Earias*, *Halias*, and allies should also be placed in the *Noctuidæ*, having the ocelli present and vein 8 arising free.

PHYLOGENY OF THE ARCTIADÆ.



A. Ocelli absent.

- | | |
|--|--------------------|
| a. Fore wing with tufts of raised scales in the cell | <i>Nolinæ.</i> |
| b. Fore wing without tufts of raised scales in the cell..... | <i>Lithosianæ.</i> |

B. Ocelli present

Arctianæ.

Subfamily NOLINÆ.

Proboscis usually fully developed, sometimes aborted; palpi porrect, sometimes oblique, the 2nd joint roughly scaled above and below; maxillary palpi minute, invisible, in *Archinola* large and triangularly scaled; frons and basal joint of antennæ usually with tufts of scales; tibiæ with the spurs long. Fore wing with tufts of raised scales in cell, near base, at middle and at upper angle. Hind wing with vein 8 coincident with the cell to near or beyond middle.

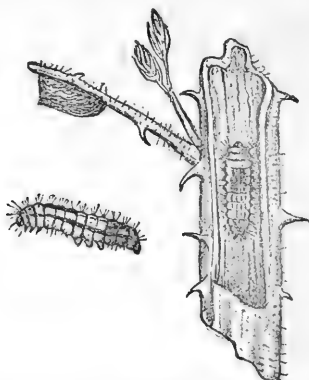


Fig. 1.—Larva of *Celama internella*. ♂.

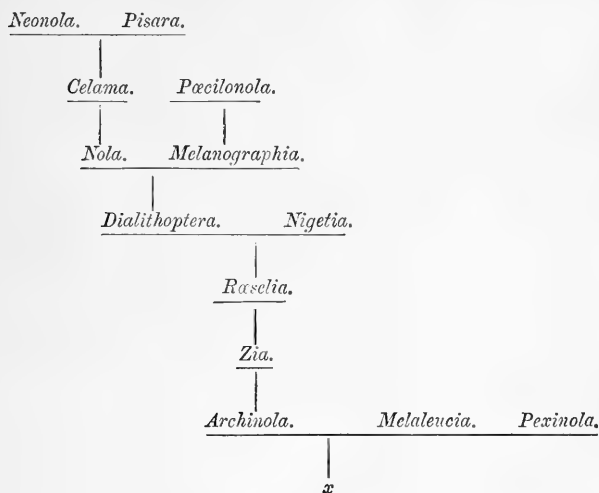
Larva with tufts of hair; without prolegs on somite 6; forming a boat-shaped cocoon of silk and fragments of bark on a twig of

food-plant; sometimes feeding in webs, whilst in *Celama internella* the larva feeds in the interior of the young fleshy shoots of *Rubus*, but has retained its bright coloration and tufts of hair and forms a boat-shaped cocoon in the open, so that the habit of internal feeding must be of very recent acquirement.

The *Nolinæ* probably arose from a very early Arctian form which had affinities in the *Noctuidæ* to *Hyppena* and *Sarrothripa*, both of which have raised tufts of scales in the cell of fore wing—the former having the prolegs on somite 6 of the larva absent as in many other *Noctuidæ*, whilst the latter forms a boat-shaped cocoon exactly like that of the *Nolinæ*, and also has the bar-shaped retinaculum, both of which characters occur in the group of Noctuid genera comprising *Earias*, *Halias*, *Carea*, and allies.

Of the genera of *Nolinæ*, *Pexinola* and *Melaleucia* represent terminal developments from archaic forms, whilst *Archinola* with large triangularly-scaled maxillary palpi, these being invisible in the other genera, represents probably the form nearest to the ancestor of the other recent genera, which are all closely allied.

PHYLOGENY OF THE NOLINÆ.



Key to the Genera.

- A. Fore wing with veins 7, 8 stalked.
 a. Fore wing with veins 9, 10 absent.
 a¹. Hind wing with vein 5 from lower angle of cell NEONOLA, p. 4.
 b¹. Hind wing with vein 5 from well above angle of cell or middle of discocellulars.
 a². Fore wing with veins 3, 4 stalked PISARA, p. 5.
 b². Fore wing with veins 3, 4 from cell CELAMA, p. 5.

- b. Fore wing with vein 9 absent, 10 stalked with 7, 8.
- a¹. Hind wing with vein 4 absent.
- a². Fore wing with vein 7 given off from 8 after 10..... PÆCILONOLA, p. 47.
- b². Fore wing with vein 7 given off from 8 before 10..... NOLA, p. 31.
- b¹. Hind wing with vein 4 present.
- a². Fore wing with vein 7 given off from 8 after 10..... MELANOGRAPHIA, p. 48.
- b². Fore wing with vein 7 given off from 8 before 10..... DIALITHOPTERA, p. 50.
- c. Fore wing with veins 9, 10 present.
- a¹. Fore wing with veins 3, 4 stalked..... NIGETIA, p. 50.
- b¹. Fore wing with veins 3, 4 from cell.
- a². Fore wing with vein 10 stalked with 7, 8, 9. RÆSELIA, p. 51.
- b². Fore wing with vein 10 from cell.
- a³. Maxillary palpi minute, invisible..... ZIA, p. 75.
- b³. Maxillary palpi large, triangularly scaled..... ARCHINOLA, p. 77.
- B. Fore wing with veins 8, 9 stalked, 7 from cell.
- a. Fore wing with vein 10 absent..... MELALEUCIA, p. 78.
- b. Fore wing with vein 10 from cell..... PEXINOLA, p. 79.

Genus **NEONOLA**, nov.

Type, *N. mesosticta*.

Proboscis fully developed; palpi porrect, extending about the length of head and thickly scaled above and below, the 3rd joint short; maxillary palpi minute; frons with projecting tuft of scales; antennæ of male ciliated, the basal joint with tuft of scales; tibiæ with the spurs well developed. Fore wing rather short and broad; veins 3, 4 stalked from angle of cell; 5 from angle; 6 from upper angle; 7 and 8 stalked; 9, 10 absent; 11 from cell. Hind wing with veins 3 and 5 from angle of cell; 4 absent; 6, 7 from upper angle; 8 from middle of cell.

1. *Neonola mesosticta*, n. sp.

Grey, more or less suffused with white; head whitish. Fore wing with brownish patch at base of costa, bounded by a short dark antemedial line from costa; a dark tuft of scales in middle of cell with a line from it to inner margin angled below the cell; a triangular brown spot on middle of costa with some dark scales on its inner edge, and with a more or less prominent dark waved line from it to inner margin, angled on vein 2; the postmedial line waved from costa to vein 3, where it is obtusely angled, then oblique, a diffused patch of brownish suffusion beyond it from middle to apex; an irregularly dentate subterminal line. Hind wing whitish, suffused with fuscous, especially towards costa and apex.

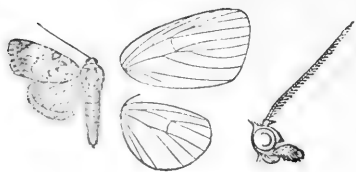


Fig. 2.—*Neonola mesosticta*, ♂. $\frac{3}{2}$.

Hab. SIKHIM, 7000 ft. (*Pilcher*), 1 ♂; CEYLON, Pattalam (*Pole*), 1 ♀; BORNEO, Sandakan (*Pryer*, *Craigh*), 1 ♂ 1 ♀; PULO LAUT (*Doherty*), 1 ♂ type. Exp. 16 millim.

Genus **PISARA**.

	Type.
<i>Pisara</i> , Wlk. Journ. Linn. Soc., Zool. vi. p. 117 (1862)	<i>opalina</i> .
<i>Necla</i> , Wlk. xxvii. 99 (1863)	<i>opalina</i> .

Proboscis fully developed; palpi porrect, extending about the length of head, the 2nd joint roughly scaled above and below, the 3rd moderate, slightly scaled; frons with tuft of scales; antennæ with tuft on basal joint; tibiæ with the spurs well developed. Fore wing triangular; veins 3, 4 stalked; 5 from above angle of cell; 6 from below upper angle; 7, 8 shortly stalked; 9, 10 absent; 11 oblique. Hind wing with vein 3 from angle of cell; 4 absent; 5 from middle of discocellulars; 6, 7 shortly stalked; 8 from middle of cell.

2. *Pisara opalina*.

Pisara opalina, Wlk. Journ. Linn. Soc., Zool. vi. p. 118 (1862); Swinh.

Cat. Het. Mus. Oxon. p. 131, pl. 4. f. 14; Kirby, Cat. Het. p. 381.

Necla canioralis, Wlk. xxvii. 100 (1863).

Nola basimicans, Hmps. Moths Ind. ii. p. 139 (1894).

♀. Silvery grey, irrorated with fuscous; palpi tinged with fuscous at sides. Fore wing with tuft of fuscous and grey scales in base of cell, and ferruginous tufts in end of cell and on discocellulars; an oblique blackish subbasal line from costa to vein 1; a curved antemedial line; an indistinct postmedial line, sharply

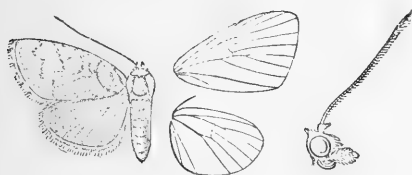


Fig. 3.—*Pisara opalina*, ♂. 3.

bent outwards from below costa to vein 3; an irregular diffused subterminal line angled outwards at veins 6 and 3; a slight terminal shade. Hind wing suffused with fuscous towards termen; cilia white, with a fine fuscous line through them.

♂. Fore wing with the basal area suffused with golden bronze; the antemedial line straighter; the tufts fuscous; the subterminal line not angled at vein 6.

Hab. BURMA, E. Pegu (*Doherty*), type † *basimicans* in Coll. Elwes; BORNEO, Sarawak (*Wallace*), 1 ♀, type *canioralis*, 1 ♂ type † in Mus. Oxon. *Exp.* 24 millim.

Genus **CELAMA**.

	Type.
<i>Celama</i> , Wlk. xxxii. 500 (1864)	<i>bifascialis</i> .
<i>Aradrapha</i> , Wlk. xxxiv. 1182 (1865)	<i>tineoides</i> .
<i>Lebena</i> , Wlk. xxxv. 1901 (1866)	<i>trinotata</i> .
<i>Minnagara</i> , Wlk. xxxv. 1902 (1866)	<i>fasciata</i> .
<i>Argyrophyes</i> , Grote, Bull. Buff. Soc. i. p. 175 (1873)	<i>ciliooides</i> .
<i>Sorocostia</i> , Rosenst. A. M. N. H. (5) xvi. p. 435 (1885)	<i>albulis</i> .
<i>Epizeuctis</i> , Meyr. Trans. Ent. Soc. 1889, p. 463	<i>internella</i> .
<i>Deltapterum</i> , Hmps. Moths Ind. ii. p. 138 (1894)	<i>peguensis</i> .

Proboscis well developed; palpi porrect, extending about the length of head; the 2nd joint roughly scaled above and below, the 3rd moderate, slightly

sealed; maxillary palpi minute; frons with tuft of scales; antennæ with tuft of scales on basal joint; tibiæ with the spurs well developed. Fore wing triangular; vein 3 from before angle of cell; 5 from above angle; 6 from below upper angle; 7 and 8 stalked; 9, 10 absent; 11 oblique. Hind wing with vein 3 from angle of cell; 4 absent; 5 from middle of discocellulars or well above angle; 6, 7 stalked, rarely from cell; 8 from middle of cell.

SECT. I. Antennæ of male pectinated.

- A. (*Deltapterum*). Fore wing of male with elongate foveal depression in cell; hind wing with fold on inner area containing a tuft of hair, the tornus produced to a point.

*3. *Celama peguensis*.

Deltapterum peguense, Hmps. Moths Ind. ii. p. 138 (1894).

♂. Head, thorax, and abdomen white, irrorated with brown and fuscous. Fore wing ochreous



Fig. 4.
Celama peguensis, ♂. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

white, irrorated with fuscous; the tufts of scales near base and at middle and end of cell small; black points on basal half of costa and a subbasal point; an indistinct curved antemedial line from cell to inner margin; a postmedial series of black points from below costa to vein 3, where it is incurved and becomes more continuous; an irregularly

dentate subterminal line. Hind wing white, the termen tinged with brown.

Hab. BURMA, E. Pegu, 4000 ft. (*Doherty*), 1 ♂ type † in Coll. *Elwes*. *Exp.* 20 millim.

B. (*Celama*). Wings of male normal.

- | | |
|---|------------------------|
| a. Fore wing with broad black medial band angled at middle and conjoined to a wedge-shaped patch on terminal area. | |
| a ¹ . Fore wing with the medial band arising from base of costa | <i>lativittata</i> . |
| b ¹ . Fore wing with the medial band arising from costa near middle | <i>tessellata</i> . |
| b. Fore wing red-brown from near base to the subterminal line | <i>rufa</i> (♀). |
| c. Fore wing with brown band on inner side of postmedial line | <i>candida</i> . |
| d. Fore wing with medial black band confluent with the postmedial series of points below the cell | <i>encausta</i> . |
| e. Fore wing without medial band. | |
| a ² . Fore wing with large oblique elliptical brownish antemedial and medial costal stigmata. | |
| a ² . Fore wing with trisinate subterminal line, the two lower sinuations defined on inner side by black scales. | |
| a ³ . Fore wing with large patches of black scales in sinuations of subterminal line | <i>chlamitulalis</i> . |
| b ³ . Fore wing with the sinuations of postmedial line slightly defined by black scales | <i>cristulalis</i> . |

- b². Fore wing with irregular subterminal line without black scales on inner side.
 a³. Fore wing with black points on the postmedial line and prominent spot at vein 2.
 a⁴. Fore wing with the antemedial line angled on median nervure *fasciata*.
 b⁴. Fore wing with the antemedial line angled below median nervure *tumulifera*.
 b³. Fore wing without black points and spot on the postmedial line.
 a⁴. Fore wing with two postmedial lines *bifascialis*.
 b⁴. Fore wing with one postmedial line.
 a⁵. Fore wing brownish white, the postmedial line minutely dentate between veins 7 and 3 *disticta*.
 b⁵. Fore wing grey *aphyla*.
 b¹. Fore wing without large oblique brown antemedial and medial stigmata on costa.
 a². Fore wing with the antemedial line strongly defined by black *astigma*.
 b². Fore wing with the antemedial line not defined by black.
 a³. Fore wing with small blackish tufts of raised scales in cell, on antemedial line, and at upper angle.
 a⁴. Fore wing with the postmedial line continuous *cingalesa*.
 b⁴. Fore wing with the postmedial line double, punctiform *duplicilinea*.
 b³. Fore wing with the tufts of scales fulvous brown.
 a⁴. Fore wing without brown fascia on basal half of costa *argentea* (♀).
 b⁴. Fore wing with the tufts of scales placed on a fulvous-brown fascia on basal half of costa. *streptographia*.

*4. *Celama lativittata*.

Ræselia lativittata, Moore, Lep. Atk. p. 286 (1888); Hmps. Moths Ind. ii. p. 142; Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 11; Kirby, Cat. Het. p. 375.

♀. Head and thorax pure white; palpi brown at sides; abdomen brownish, banded with white. Fore wing white; a broad brown band, its inner edge running from base of costa to middle of inner margin, its outer edge angled outwards below vein 4 and conjoined to a large wedge-shaped patch on termen, leaving an oblique white patch at base, a round patch on inner area beyond middle, and a large patch on costa from middle to apex: the tufts of scales rather small; indistinct postmedial and subterminal lines angled inwards below costa, where there are spots, then running obliquely outwards to the patch on terminal area. Hind wing white, suffused with brownish towards apex and termen.

Hab. SIKHIM, in Coll. Elwes. *Exp.* 20 millim.

5. *Celama tessellata*. (Plate XVIII. fig. 1.)

Nola tessellata, Hmps. Moths Ind. iv. p. 504 (1896).

♂. Head white; palpi below and antennæ brown; tegulæ and patagia white, the latter with dark band; thorax blackish; abdomen fuscous. Fore wing with the basal area white, with black patch at base of costa; a broad black medial band strongly angled at middle and conjoined to a wedge-shaped black patch from middle of termen and to a rather irregular patch from costa before apex; traces of an irregular subterminal line; some tufts of raised scales with a metallic gloss on the medial line; cilia blackish, except at tornus. Hind wing whitish, tinged with fuscous.

Hab. ASSAM, Khâsis, 1 ♂ type. *Exp.* 20 millim.

6. *Celama rufa*, n. sp. (Plate XVIII. fig. 2.)

♀. Head, thorax, and abdomen white; palpi at sides, pectus, legs, and abdomen tinged with rufous. Fore wing white, rufous from near base to the subterminal line; the tufts of scales very large and tipped with white; some fuscous suffusion below cell on medial area; a black point above the tuft at upper angle of cell; the postmedial line white, erect, slightly excurved at middle; the subterminal line trisinate, with some black in its upper sinus and large black patches in the two lower; the terminal area white, with some black at middle; the cilia fuscous. Hind wing pale fuscous, whitish towards base and costa.

Hab. CEYLON, Pundaloya (*Green*), 1 ♀ type. *Exp.* 16 millim.

7. *Celama candida*.

Nola candida, Butl. Ill. Het. B. M. iii. p. 9, pl. 43. f. 3 (1879); Kirby, Cat. Het. p. 378.

♂. White; palpi brownish at sides. Fore wing with small tufts of scales near base and at middle and upper angle of cell; some brownish suffusion on basal part of costal area; a strongly waved antemedial brown line obsolete towards inner margin; the postmedial line bent outwards from below costa to vein 3, with a broad brown band on its inner side, irrorated with black and leaden-grey scales and with a small white spot below the tuft at upper angle of cell; an indistinct irregularly waved subterminal line strongly retracted to costa; some fuscous suffusion on middle of termen. Hind wing with slight discal point.

Hab. JAPAN, Yokohama (*Jones*), 1 ♂ type; CHINA, Chekiang (*Pryer*), 1 ♂. *Exp.* 16 millim.

8. *Celama encausta*, n. n. (Plate XVIII. fig. 3.)

Rhynchopalpus fasciatus, Hmps. Moths Ind. ii. p. 144 (1894), nec Wlk.

♂. Head and thorax pale brownish white; abdomen tinged with fuscous, the anal tuft brown. Fore wing pale brownish; a fuscous

patch on basal costal area ; an erect diffused fuscous medial band ; a postmedial series of black points on the veins, incurved below vein 5 ; an obscure irregular subterminal series of points excurved from costa to vein 2, where it is angled inwards, then excurved to tornus. Hind wing white, tinged with fuscous.

Hab. SIKHIM, 1800 ft. (*Dudgeon*), 1 ♂ ; ASSAM, Naga Hills (*Doherty*), type † ♂ in Coll. Elwes. *Exp.* 18 millim.

9. *Celama chlamitulalis*.

Pyrallis chlamitulalis, Hübn. Eur. Schmett., Pyr. ff. 160, 181 (1827); Dup. Lép. Fr. viii. (2) p. 277, pl. 228. f. 6; Staud. Cat. p. 52; Kirby, Cat. Het. p. 374.

White ; thorax and abdomen tinged with ochreous. Fore wing with ochreous patch at base of costa ; an oblique elliptical patch and tuft of scales from costa before middle to middle of cell ; traces of the antemedial line with dark points on it below the cell and on inner margin ; an ochreous tuft of scales at end of cell ; the postmedial line excurved from below costa to vein 2 and with ochreous suffusion on its inner side ; a tri-



Fig. 5.
Celama chlamitulalis, ♂. $\frac{3}{2}$.

sinuate white subterminal line angled inwards at veins 5 and 2 and with patches of diffused black scales in its sinuations, the area beyond it rufous brown ; cilia pencilled with blackish scales. Hind wing with obscure brownish diffused postmedial and terminal bands ; cilia tinged with fuscous towards base.

Hab. FRANCE, Marseilles, 1 ♂ ; SPAIN ; ITALY ; DALMATIA, 2 ♂ Frey Coll. ; BULGARIA ; BITHYNIA ; SYRACUSE, 1 ♀ Zell. Coll. *Exp.* 14–20 millim.

10. *Celama cristulalis*.

Pyrallis cristulalis, Hübn. Eur. Schmett., Pyr. f. 17 (1827).

Phalæna cristatula, Hübn. Vögel u. Schmett. pl. 34 (1827); Kirby, Cat. Het. p. 375.

Nola subchlamydula, Staud. Hor. Soc. Ent. Ross. vii. p. 107, pl. 1. ff. 6, 7 (1871); id. Cat. p. 52; Kirby, Cat. Het. p. 374.

Nola minutalis, Leech, P. Z. S. 1888, p. 607, pl. 30. f. 17 (1889); Kirby, Cat. Het. p. 375.

White ; abdomen ochreous, with segmental white lines. Fore wing with the base of costa ochreous ; a small fuscous tuft of scales near base of cell ; an oblique ochreous bar from costa before middle ending in a small tuft of fuscous scales in cell, and with the oblique antemedial line from its extremity to inner margin ; a small fuscous tuft of scales at end of cell ; the postmedial line excurved beyond end of cell and with diffused ochreous on its inner side ; a trisinuate subterminal white line angled inwards

at veins 5 and 2, its two lower sinuations with some dark scales in them with an obscure band on their inner side; the terminal area brownish ochreous; cilia with fuscous spots at base, the tips pencilled fuscous and brown. Hind wing with the outer half suffused with brownish.

Ab. 1. *subchlamydula*: fore wing suffused with grey and irrorated with some black scales, the medial area largely suffused with brown.—Spain.

Ab. 2. *minutalis*: fore wing white, with the ante- and postmedial lines less distinct.—Japan.

Hab. SWITZERLAND, Frey Coll., 1 ♂, 2 ♀; SPAIN, 2 ♀ Zell. Coll.; GREECE; JAPAN, type † *minutalis* in Coll. Leech. *Exp.* 16–22 millim. Type † *subchlamydula* in Coll. Staudinger.

11. *Celama fasciata*.

Minnagara fasciata, Wlk. xxxv. 1903 (1866); Swinh. Cat. Het. Mus. Oxon. p. 99, pl. 4. f. 20; Kirby, Cat. Het. p. 379.

Nola nigrifascia, Hmps. Ill. Het. B. M. viii. p. 5, pl. 139. f. 15 (1891); id. Moths Ind. ii. p. 141; Kirby, Cat. Het. p. 376.

Sorocostia platygona, Lower, P. Linn. Soc. N. S. W. xxii. p. 11 (1897).

Whitish, tinged with brown and irrorated with fuscous. Fore wing with small tuft of scales near the base of cell and larger fan-shaped tufts at middle and upper angle; the costal area rather darker, with some black points; an indistinct blackish antemedial punctiform line angled on median nervure; the tufts at middle and end of cell with brownish patches above them on costa; a punctiform black postmedial line angled outwards beyond the cell, with a prominent black spot on it at vein 2, and a band of fuscous suffusion on its inner side; an irregularly sinuous subterminal fuscous line and terminal series of points. Hind wing tinged with fuscous towards termen.

Hab. SIKHIM (*Pilcher*), 1 ♀; NILGIRIS (*Lindsay*), 1 ♀ type *nigrifascia*; CEYLON, Pundaloya (*Green*), Nawalapitya (*Pole*); BORNEO, Sarawak (*Wallace*); SULA (*Wallace*), type † ♀ in Mus. Oxon.; QUEENSLAND (*Mackay*), type † *platygona* in Coll. Lower. *Exp.*, ♂ 20, ♀ 24 millim.

12. *Celama tumulifera*.

Nola tumulifera, Hmps. Ill. Het. B. M. ix. p. 88, pl. 158. f. 19 (1893); id. Moths Ind. ii. p. 141.

Head and thorax white; palpi tinged with fuscous at sides; abdomen pale fuscous, the dorsal tuft at base and anal tuft brownish in male. Fore wing whitish, the costal area tinged with fuscous; an antemedial black line acutely angled below the cell; large tufts of reddish-brown scales on oblique patches from costa at middle and end of cell; the postmedial line black, punctiform, slightly angled outwards beyond cell, with a more prominent spot on it at vein 2,

and traces of a line parallel to it on its inner side; an irregularly sinuous fuscous subterminal line and series of points on termen. Hind wing pale fuscous.

Hab. CEYLON (*Green*), 1 ♀ type; SANGIR (*Doherty*), 1 ♂. *Exp.* 20 millim.

13. *Celama bifascialis*. (Plate XVIII. fig. 4.)

Pisara bifascialis, Wlk. xxxi. 244 (1864); Swinh. Cat. Het. Mus. Oxon. p. 132; Kirby, Cat. Het. p. 381.

Celama liparisalis, Wlk. xxxii. 500 (1865); Swinh. Cat. Het. Mus. Oxon. p. 132; Kirby, Cat. Het. p. 556.

White; head and thorax tinged with fuscous; tarsi and abdomen ringed with fuscous. Fore wing with tufts of scales in base of cell and large fan-shaped tufts in end of cell and at upper angle; a basal fuscous patch; a wedge-shaped brown and black antemedial band; a triangular brown black-edged spot from costa to upper angle of cell; two fine black, obliquely sinuous postmedial lines with fuscous suffusion between them; an irregularly sinuous subterminal line; some fuscous points on costa; a dark terminal line; cilia pencilled with fuscous. Hind wing tinged with fuscous; a dark discoidal line.

Hab. BORNEO, Sarawak (*Wallace*); N. S. WALES, Richmond R. *Exp.* 14–16 millim. Types † in Mus. Oxon.

14. *Celama disticta*, n. sp. (Plate XVIII. fig. 5.)

♂. Grey; head and tegulæ white; genital tufts ochreous. Fore wing with oblique elliptical brown antemedial and medial stigmata on costa, the former with the oblique fuscous antemedial line from it to inner margin; the postmedial line excurved from below costa to vein 2, on which it is angled inwards; an irregularly sinuous subterminal line. Hind wing white, tinged with fuscous towards termen.

Hab. BHUTÁN (*Dudgeon*), 1 ♂ type; CEYLON. *Exp.* 16 millim.

15. *Celama aphylla*, n. sp. (Plate XVIII. fig. 6.)

♂. Grey-white, irrorated with black; palpi blackish at sides. Fore wing with some diffused black at base of costa; the antemedial black line minutely dentate, acutely angled in cell and arising from a rather obscure oblique costal spot; the tufts of scales in cell small; an oblique brownish patch on middle of costa; the postmedial line strongly bent outwards below costa, highly dentate between veins 7 and 2 and obsolescent towards inner margin; an obscure irregularly dentate subterminal line. Hind wing white, suffused with fuscous towards apex.

Hab. U.S.A., California, Grote Coll., 1 ♂ type. *Exp.* 22 millim.

16. *Celama astigma*. (Plate XVIII. fig. 7.)

Nola astigma, Hmps. Moths Ind. ii. p. 140 (1894). •

Head and thorax white, tinged with brown and irrorated with fuscous; abdomen greyish. Fore wing white, mostly suffused with pale brown and slightly irrorated with black; a subbasal black mark on costa; a curved antemedial line strongly defined by black; some black spots on costa from middle to apex; the post-medial black line minutely dentate, incurved below vein 3 and with brownish band on its inner side; an irregular subterminal line. Hind wing brownish white, with fuscous discoidal spot.

Hab. SIKHIM (*Pilcher*), 2 ♂, 2 ♀; ASSAM, Nāga Hills (*Doherty*), type ♂ in Coll. Elwes. *Exp.* 18–22 millim.

17. *Celama cingalesa*.

Nola cingalesa, Moore, Lep. Ceyl. ii. p. 66, pl. 104. f. 1 (1882); Hmps.

Moths Ind. ii. p. 144; Kirby, Cat. Het. p. 367.

Ræselia culaca, Swinh. Trans. Ent. Soc. 1891, p. 137, pl. 8. f. 9; Kirby, Cat. Het. p. 916.

Greyish white. Fore wing slightly irrorated with fuscous scales; a black spot at base of costa; a curved antemedial line with tuft of scales on it in cell; a small triangular mark on middle of costa, with tuft of scales at upper angle of cell and traces of an irregular line from it to inner margin; the postmedial line acutely angled outwards below costa, bent outwards between veins 5 and 3, then incurved; an irregular dentate fuscous subterminal line. Hind wing tinged with pale fuscous.

Hab. NILGIRIS (*Hampson*), 1 ♂ type *culaca*; CEYLON (*Green*), 2 ♂, 1 ♀. *Exp.* 20 millim.

18. *Celama duplicilinea*, n. sp. (Plate XVIII. fig. 8.)

Grey; head and thorax slightly irrorated with fuscous; abdomen tinged with fuscous. Fore wing slightly irrorated with fuscous and tinged with brown to the postmedial line; a blackish antemedial line strongly angled on median nervure; tufts of brownish scales at middle and end of cell; a double punctiform black postmedial line excurved from below costa to vein 2, where it is angled inwards; an irregularly sinuous subterminal line strongly bent inwards to costa and with slight black streaks on it at the veins. Hind wing whitish, tinged with fuscous towards apex; a discoidal point.

Hab. SIKHIM, 7000 ft. (*Pilcher*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

*19. *Celama argentea*. (Plate XVIII. fig. 9.)

Sorocostia argentea, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1076 (1890); Kirby, Cat. Het. p. 377.

♀. Head and tegulae pure white; palpi fulvous brown at sides; thorax and abdomen grey-white; fore tibiae and tarsi with brownish markings; abdomen with brownish dorsal tuft on 1st segment.

Fore wing grey-white, the costal area pure white to three-fourths; subbasal, antemedial, and medial fulvous marks on costa, and fulvous tufts of raised scales with a few black scales on their inner edge in cell near base, at middle, and upper angle; the antemedial line represented by some black scales in submedian interspace, the postmedial line by slight black points on the veins bent inwards below vein 4 and a short bar in submedian interspace; an indistinct irregularly sinuous subterminal grey line; cilia irrorated with black. Hind wing silvery white.

Hab. QUEENSLAND, Brisbane, Coll. Turner. *Exp.* 18 millim.

20. *Celama streptographia*, n. sp. (Plate XVIII. fig. 10.)

♂. Head whitish; palpi and antennæ brown and fuscous; thorax whitish; tegulæ and metathorax brown irrorated with fuscous; abdomen whitish. Fore wing whitish, largely suffused with brown and irrorated with black; the costal area brown to beyond middle; a fine black line from vein 5 beyond the cell to origin of vein 2, where it is angled, then to inner margin; an oblique postmedial series of black points bent outwards between veins 5 and 2; the terminal area suffused with fuscous except towards apex; traces of an irregular subterminal line. Hind wing white, tinged with brownish towards apex.

Hab. CEYLON, Puttalam (*J. Pole*), 1 ♂ type. *Exp.* 14 millim.

SECT. II. Antennæ of male with fascicles of cilia.

A. (*Epizeuctis*). Hind wing of male with patch of rough scales on underside at tornus.

21. *Celama internella*.

Pisara internella, Wlk. xxxi. p. 245 (1864); Kirby, Cat. Het. p. 381.

Ræselia pascua, Swinh. P. Z. S. 1885, p. 293, pl. 20. f. 6; Hmps. Moths Ind. ii. p. 141; Kirby, Cat. Het. p. 376.

Nota quadrimaculata, Heyl. C.R. Soc. Ent. Belge, xxxvi. p. 43 (1892); Kirby, Cat. Het. p. 916.

♂. White. Fore wing with brownish spot at base of costa; large oblique elliptical brown and black stigmata on costa before and at middle, the former with black point below it near origin of vein 2; the postmedial line excurved from below costa to vein 3, on which it is angled inwards, then bent outwards again; an irregularly trisinate subterminal line with ochreous-brown suffusion before and beyond it.

Hind wing more or less tinged with yellow, especially on inner area.

♀. Hind wing more or less tinged with fuscous.

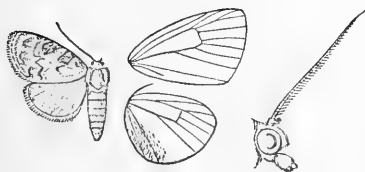


Fig. 6.—*Celama internella*, ♂. $\frac{3}{2}$.

Hab. NATAL (*Burrows*); BHUTÁN (*Dudgeon*); CALCUTTA (*Atkinson*); BOMBAY, POONA, type *pascua* (*Swinhoe*); NILGIRIS (*Hampson*); CEYLON (*Green, Pol*); BORNEO, SARAWAK (*Wallace*), type; JAVA, Preanger, type † ♀ *quadrimaculata* in Coll. Heylaerts; NEW GUINEA; N. S. WALES (*Mathew*), 1 ♀. *Exp.* 16–18 millim.

Larva, Himpn. Ill. Het. ix. p. 88, pl. 175. f. 9.

Head brown; 1st and 2nd somites reddish; 3rd to 9th yellow; two broad black subdorsal stripes on 4th and 5th somites, continued as narrow lines to the 9th; 10th and 11th somites reddish brown, the dorsal area darker; a purple lateral stripe on 2nd–11th somites; each somite with from four to six fasciculi of short pale hairs. Food-plant *Rubus*, the larva feeding in the interior of the young fleshy shoots.

Cocoon exposed, boat-shaped, compact, composed of stipules and hairs of the plant interwoven with silk.

B. (*Aradrapha*). Hind wing of male without patch of rough scales on underside at tornus.

a. Fore wing with prominent blackish band or suffusion on inner side of postmedial line.

a¹. Fore wing with the black suffusion extending to well beyond the postmedial line..... *euryzonata*.

b¹. Fore wing with the black suffusion not extending beyond the postmedial line.

a². Fore wing with antemedial dark wedge-shaped band from costa.

a³. Fore wing with the whole area between the ante- and postmedial bands filled in with fuscous

crythrostigmata.

b³. Fore wing with whitish area beyond the antemedial band.

a⁴. Fore wing with the area beyond the postmedial line rufous..... *lucidalis*.

b⁴. Fore wing with the area beyond the postmedial line white

tæniata.

b². Fore wing without antemedial wedge-shaped band.

a³. Fore wing with the ground-colour white.

a⁴. Fore wing with the medial band subtriangular, extending on costa to before middle.....

pustulata.

b⁴. Fore wing with the medial band commencing on costa after middle.....

cilicoides.

b³. Fore wing with the ground-colour brownish grey.

a⁴. Fore wing suffused with fuscous from base to postmedial line

suffusa.

b⁴. Fore wing with band of black suffusion before the postmedial line.....

mesomelana.

c⁴. Fore wing with band of fuscous suffusion before the postmedial line

leucoma.

b. Fore wing without prominent blackish band on inner side of postmedial line.

a¹. Fore wing with large fan-shaped medial and postmedial tufts of scales.

a². Fore wing with the terminal area rufous, the area before the subterminal line suffused with fuscous

marginata.

- b*². Fore wing with the terminal area white.
- a*³. Fore wing with broad rufous band before the postmedial line *appelia*.
- b*³. Fore wing with the area before the postmedial line white *sorghiella*.
- b*¹. Fore wing with the tufts of scales small.
- a*². Fore wing with prominent elongate rufous spot at base of costa.
- a*³. Fore wing with the tufts of scales at middle and end of cell placed at extremities of oblique rufous spots.
- a*⁴. Tegulae with fulvous band *triquetrana*.
- b*⁴. Tegulae white *innocua*.
- b*³. Fore wing without oblique rufous spots on costa *minna*.
- b*². Fore wing without distinct elongate rufous spot at base of costa.
- a*³. Fore wing with the tufts of scales at middle and end of cell placed at extremities of more or less distinct oblique costal spots.
- a*⁴. Fore wing with the postmedial line acutely angled below costa.
- a*⁵. Fore wing with the postmedial line dentate *cicatricalis*.
- b*⁵. Fore wing with the postmedial line not dentate.
- a*⁶. Fore wing with the antemedial line strongly defined by black *angulata*.
- b*⁶. Fore wing with the antemedial line not strongly defined by black.
- a*⁷. Fore wing with the ground-colour white *centonalis*.
- b*⁷. Fore wing with the ground-colour grey-brown..... *thymula*.
- b*⁴. Fore wing with the postmedial line not angled below costa and punctiform.
- a*⁷. Fore wing with the postmedial line strongly curved from below costa to vein 3 *confusalis*.
- b*⁵. Fore wing with the postmedial line nearly straight from costa to vein 3.
- a*⁶. Fore wing with the medial area whitish *squalida*.
- b*⁵. Fore wing uniform brownish.
- a*⁷. Fore wing dull reddish brown.
- a*³. Fore wing with the postmedial line bent outwards below costa. . *pumila*.
- b*³. Fore wing with the postmedial line regularly incurved to costa and strongly marked with black towards inner margin *egyptiaca*.
- b*⁷. Fore wing pale grey-brown *ovilla*.
- c*⁷. Fore wing bluish grey *clethræ*.
- b*³. Fore wing without oblique costal spots at middle and end of cell.
- a*⁴. Fore wing with the postmedial line strongly excurved from below costa to vein 3.
- a*⁵. Fore wing with the postmedial line punctiform.
- a*⁶. Fore wing with the tuft at middle of cell prominently black *melalopha*.

- b*⁶. Fore wing with the tuft at middle of cell fuscous.
*a*⁷. Fore wing with the ground-colour brownish..... *flexuosa*.
*b*⁷. Fore wing with the ground-colour white.
*a*⁸. Hind wing fuscous..... *karelica*.
*b*⁸. Hind wing white..... *polia*.
*b*⁵. Fore wing with the postmedial line continuous.
*a*⁶. Fore wing pale grey..... *ancipitalis*.
*b*⁶. Fore wing fuscous brown..... *meridionalis*.
*b*⁴. Fore wing with the postmedial line oblique.
*a*⁵. Fore wing with the postmedial line reduced to points on the veins..... *phæochroa*.
*b*⁵. Fore wing with the postmedial line continuous.
*a*⁶. Fore wing with the postmedial line straight.
*a*⁷. Fore wing with the postmedial line arising from costa before apex.
*a*⁸. Fore wing without oblique whitish medial band..... *tincoides*.
*b*⁸. Fore wing with oblique whitish medial band..... *irenica*.
*b*⁷. Fore wing with the postmedial line arising from apex..... *hesycha*.
*b*⁶. Fore wing with the postmedial line dentate below costa..... *paromæa*.
*c*⁶. Fore wing with the postmedial line minutely dentate, a white fascia below basal two-thirds of costa..... *albalis*.
*c*⁴. Fore wing with the postmedial line angled at middle.
*a*⁵. Fore wing with the ground-colour grey-brown, the postmedial line black..... *biguttalis*.
*b*⁵. Fore wing with the ground-colour white, the postmedial line fulvous..... *microlopha*.

22. *Celama euryzonata*, n. sp. (Plate XVIII. fig. 11.)

♀. White; palpi at sides, thorax, and abdomen tinged with fuscous; tarsi ringed with fuscous. Fore wing slightly tinged with fuscous before the faint obliquely sinuous antemedial line; a broad fuscous band with straight erect edges extending from middle of wing to near apex on costa and to tornus, pencilled with black scales, becoming reddish brown towards costa, and traversed by the postmedial line, which is excurved between veins 5 and 2 and has deep black suffusion on its inner edge; cilia slightly tinged with fuscous. Hind wing fuscous, the cilia white.

Hab. SUMATRA (*Forbes*), 1 ♀ type. *Exp.* 14 millim.

23. *Celama erythrostigmata*.

Nota erythrostigmata, Hmps. Moths Ind. ii. p. 139 (1894).

Pisara mediczonata, Hmps. Moths Ind. iv. p. 505 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 31.

♂. Head and thorax white tinged with fuscous; tarsi and abdomen ringed with fuscous. Fore wing greyish white; the base fuscous with oblique outer edge; an antemedial wedge-shaped blackish band, brown towards costa, and with a tuft of scales in cell on its outer edge; the medial area fuscous to the two obliquely sinuous fine black postmedial lines; a tuft of blackish scales at upper angle of cell, with brown patch on costa above it; an irregularly sinuous fuscous subterminal line. Hind wing pale fuscous with dark discoidal point.

♀. The medial area of fore wing browner; some brown suffusion before the subterminal line.

Hab. BHUTÂN (*Dudgeon*), 1 ♂, type *mediozonata*; ASSAM, Naga Hills (*Doherty*), type † in Coll. Elwes; BORNEO, Sandakan (*Pryer*), 1 ♀. *Exp.* 16 millim.

24. *Celama lucidalis*.

Pisara lucidalis, Wlk. xxxi. 245 (1864); Swinh. Cat. Het. Mus. Oxon. p. 132, pl. iv. f. 12; Hmps. Moths Ind. ii. p. 145; Kirby, Cat. Het. p. 381.

Nola dimidiata, Snell. Tijds. v. Ent. xvii. p. 66, pl. 6. f. 2 (1874); Kirby, Cat. Het. p. 372.

White; palpi brown at sides; tarsi ringed with fuscous; abdomen tinged with fuscous. Fore wing with small tuft of scales in base of cell and large fans of brown and fuscous scales in middle and end of cell; a brown spot near base of costa; an antemedial brown and fuscous wedge-shaped patch from costa to vein 1; a black-brown band with straight inner edge before the postmedial line, which is angled outwards below costa and at vein 3, inwards at vein 2, and with pale reddish-brown beyond it to the irregularly sinuous subterminal line; termen and cilia fuscous. Hind wing tinged with fuscous towards termen; a dark discoidal point.

Hab. CEYLON, Puttalam, Nawalapittya (*Pole*); BORNEO, Sarawak (*Wallace*); JAVA. *Exp.*, ♂ 14, ♀ 16 millim. Type † in Mus. Oxon.

25. *Celama tæniata*.

Nola tæniata, Snell. Tijds. v. Ent. xvii. p. 65, pl. 6. f. 1 (1874); Kirby, Cat. Het. p. 372.

Raselia fragilis, Swinh. Trans. Ent. Soc. 1890, p. 184; Hmps. Moths Ind. ii. p. 139; Kirby, Cat. Het. p. 376.

Sorocostia mesozona, Lucas, Proc. Linn. Soc. N. S. W. (2) iv. p. 1075 (1890); Kirby, Cat. Het. p. 377.

White; head, thorax, and abdomen tinged with fuscous; tarsi ringed with fuscous. Fore wing more or less suffused with fuscous, especially towards costa; the antemedial line white, defined on outer side by a fuscous patch on costa, a tuft of raised black scales in cell, and a curved black line from cell to vein 1; a medial brown band irrorated with raised black and silvery scales, with a tuft of raised black scales at upper angle of cell and bounded by the postmedial line which is excurved between veins 5 and 2; the terminal area suffused

with fuscous; an irregularly sinuous subterminal line. Hind wing slightly tinged with fuscous towards termen.

Hab. PUNJAB, Mean Meer (*Harford*); CEYLON, Hambantota (*Pol*); BURMA, Rangoon, type *fragilis*; JAVA, type† in Coll. Snellen; N. S. WALES, Richmond R., 1 ♀. *Exp.* 14–16 millim.

26. *Celama pustulata*.

Erastria pustulata, Wlk. xxxiii. 795 (1865); Kirby, Cat. Het. p. 377.

Nola nigrofasciata, Zell. Verh. zool.-bot. Ges. Wien, xxii. p. 454, pl. ii. f. 1 (1872).

Eustrotia obaurata, Morr. Proc. Bost. Soc. N. H. xvii. p. 154 (1874).

White; palpi tinged with brown at sides. Fore wing with tufts of black scales at base in and below cell and large tufts in end of cell and beyond upper angle; a brown patch at base of costa irrorated with black; a medial brown band strongly irrorated with black, with oblique inner edge and bounded by the postmedial line, which is punctiform and strongly excurved from below costa to vein 2, where it is angled inwards; an irregularly dentate fuscous subterminal line bent inwards to costa and angled inwards at veins 5 and 2; a maculate terminal fuscous band; cilia fuscous. Hind wing suffused with fuscous towards termen; an obscure discoidal point and curved subterminal band.

Hab. U.S.A., N. Atlantic States, type Zell. Coll., type *nigrofasciata*, Grote Coll. *Exp.* 22 millim.

27. *Celama cilicoides*. (Plate XVIII. fig. 12.)

Argyrophytes cilicoides, Grote, Bull. Buff. Soc. i. p. 175 (1873); Kirby, Cat. Het. p. 378.

♀. White. Fore wing with large patch of raised fuscous and leaden scales at end of cell; the postmedial line punctiform, strongly excurved from below costa to vein 2, and with a broad irregular area of pale brown suffusion on its inner side extending into the cell; a fuscous patch beyond lower angle of cell; an irregularly sinuous subterminal brown line bent inwards to costa and angled inwards on veins 5 and 2. Hind wing slightly tinged with brown towards apex.

Hab. U.S.A., Atlantic States, 1 ♀ Grote Coll. *Exp.* 18 millim.

28. *Celama suffusa*, n. sp. (Plate XVIII. fig. 13.)

Fuscous grey; head and thorax irrorated with black; palpi blackish at sides; tuft on basal joint of antennæ black; abdomen tinged with fuscous. Fore wing strongly suffused with black to the postmedial line and irrorated with a few leaden scales especially at end of cell; slight tufts of scales near base and at middle and end of cell; the postmedial line oblique from costa to vein 4, then strongly incurved; the terminal area irrorated with black and brown and with traces of an irregularly waved subterminal line. Hind wing pale fuscous.

Hab. SIKHIM, 7000 feet (*Pilcher*), 1 ♂, 1 ♀ type. *Exp.* 18 millim.

29. *Celama mesomelana*, n. sp. (Plate XVIII. fig. 14.)

♂. Head and tegulæ white; thorax and abdomen brownish white. Fore wing brownish white; a medial black band suffused with silvery leaden-grey scales, bounded by the ante- and postmedial waved lines, the former angled in cell, the latter bent outwards from below costa to vein 3, traversed by a waved medial black line and with tufts of scales on it at middle and end of cell; an irregularly sinuous subterminal fuscous line; termen brown, expanding towards apex and with some white spots on it. Hind wing white, with fuscous discoidal spot.

Hab. SIKHIM (*Pilcher*), 1 ♂ type. *Exp.* 20 millim.

Subsp. 1. Fore wing greyer, without the brown tinge; the medial band black-brown.

Hab. BORNEO, Kina Balu (*Waterstrauer*), 1 ♂.

30. *Celama leucoma*. (Plate XVIII. fig. 15.)

Sorocostia leucoma, Meyr. P. L. Soc. N. S. W. (2) i. p. 725 (1886); Kirby, Cat. Het. p. 377.

Sorocostia microphila, Turner, Trans. R. Soc. S. Austr. 1899, p. 16.

♀. Head and tegulæ white, slightly irrorated with black; thorax and abdomen brown and fuscous. Fore wing pale reddish brown, irrorated with a few large black scales, the inner area tinged with fuscous and with a whitish patch on costa before middle; large tufts of fuscous scales near base and in middle and end of cell; a diffused black subbasal patch from costa to median nervure; a waved post-medial black line, very strongly excurved from below costa to vein 4 and with a broad band of blackish suffusion on its inner side; an irregularly sinuous black subterminal line; the terminal area and cilia strongly irrorated with black. Hind wing pale fuscous.

Hab. QUEENSLAND; N. S. WALES, Sydney (*Mathew*), 4 ♀, type † ♂ in Coll. Meyrick. *Exp.* 22 millim. Type † *microphila* in Coll. Turner.

31. *Celama marginata*.

Nola marginata, Hmps. Trans. Ent. Soc. 1895, p. 296; id. Moths Ind. iv. p. 503; Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 27.

Head, thorax, and abdomen white tinged with fuscous. Fore wing pale fuscous, with small tuft of scales in base of cell and large fan-shaped tufts at middle and upper angle, with brownish patches on costa above them; faint traces of curved fuscous antemedial, oblique medial, and postmedial line angled at middle; the fuscous suffusion deeper towards the irregularly sinuous subterminal blackish line, which is excurved at middle and bent outwards to tornus, defined by white on outer side and with the area beyond it pale reddish brown. Hind wing white tinged with fuscous.

Hab. SIKHIM (*Pilcher*), 1 ♀; BHUTÁN (*Dudgeon*), 2 ♂, type. *Exp.* 16–20 millim.

32. *Celama appelia*, n. sp. (Plate XVIII. fig. 16.)

♀. White. Fore wing with the basal half suffused with brownish; tufts of raised brownish scales near base and in middle and end of cell; traces of a brown antemedial line and two slight spots on costa; the postmedial line sharply bent outwards below costa, then oblique and minutely dentate, with a broad band of brown suffusion before it; a waved subterminal line from vein 5 to inner margin; some spots on costa towards apex and on termen; cilia brown.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♀ type. *Exp.* 20 millim.

33. *Celama sorghiella*.

Nola sorghiella, Riley, Rep. Ins. 1882, p. 188, pl. xi. f. 1; Kirby, Cat. Het. p. 379.

Nola portoricensis, Möschl. Abh. Senck. Ges. xvi. p. 118 (1890); Kirby, Cat. Het. p. 376.

White. Fore wing with the costa pale brown; raised tufts of pale brown scales near base, at middle and end of cell; an obscure postmedial brown line bent outwards between veins 5 and 2; some brownish suffusion beyond lower angle of cell; an obscure waved subterminal line from vein 5 to inner margin; some spots on costa towards apex; termen and cilia except at apex pale brown.

Hab. U.S.A., North Carolina, 1 ♂ Grote Coll.; PORTORICO, type † *portoricensis* in Coll. Staudinger; SURINAM, Paramaribo (*Dohrn*), 1 ♀; ARGENTINA, Goya (*Perrins*), 1 ♀. *Exp.* 16 millim.

Larva, Dyar, Psyche, vi. p. 110, & Can. Ent. 1899, p. 61.

Full-grown: length 13 millim. Yellowish or pale greenish yellow, with two broad brownish dorsal stripes and sometimes subdorsal and lateral lines; dorsal line almost sulphur-yellow; head yellow, small and retractile: stigmata small, brown; each segment with transverse dorsal series of six piliferous warts and a smaller wart at base of legs furnished with short sharp yellow bristles with brown tips, those of the lateral warts mixed with a few long slender hairs; legs yellowish. Food-plant, *Sorghum vulgare*; feeds in a web.

Pupa 5.6 millim.; brownish yellow, darkish on dorsum and abdomen, and closely covered with small brownish granules.

34. *Celama triquetrana*. (Plate XVIII. fig. 18.)

Brachyiania triquetrana, Fitch, 1st & 2nd Rep. Ins. N. Y. p. 244 (1856).

Lebena trinotata, Wlk. xxxv. 1902 (1866); Kirby, Cat. Het. p. 378.

Nola sexmaculata, Grote, Can. Ent. ix. p. 235 (1877).

Grey, irrorated with fuscous; palpi brown at sides; tegulæ with fulvous band; shoulders with brown spots. Fore wing with elongate rufous patch at base of costa: tufts of scales near base and at middle and end of cell, the two latter at extremity of oblique elliptical rufous patches on costa: the antemedial line black, angled on inner side of 2nd costal patch, then oblique; the postmedial line indistinct, minutely dentate and incurved between veins 3 and 1; an obscure irregularly sinuous subterminal line bent inwards to

costa. Hind wing whitish, tinged with fuscous towards apex; a discoidal point.

Hab. U.S.A., Atlantic States, 1 ♂ 2 ♀, type *trinotata*; California, 2 ♀, type *seamaculata*. *Exp.* 20 millim.

Larva, Dyar, Insect Life, iii. p. 61, & Psyche, vi. p. 110.

Immature: Greenish yellow; warts of rows 1 and 2 black; eyes black; mouth brown; frontal triangular plate with a small spot and the two plates above it with confluent patches.

Mature: Head round, somewhat retracted; pale yellow, thickly marked with black; maxillæ brown; two large black spots on frontal shields; large patches on eyes and area behind them, with smaller patches in front of them; body stout, somewhat flattened, slightly attenuate towards extremity; four pairs of prolegs; cervical spot double, rounded behind, and with a pair of yellow warts in front; three series of warts, the wart of series 2 on 2nd somite small; a row of small warts above base of legs; all the warts with a few white hairs; pale yellow, with diffused blackish dorsal line and fainter subdorsal line; the warts of series 1 and 2 black and brown, of series 3 ochre. Length 12 millim.

Food-plant, *Hamamelis virginica*, feeding exposed on upperside of leaf without web and not eating the lower epidermis.

Cocoon formed of small pieces of bark laid together side by side, truncate anteriorly, tapering posteriorly.

The moth emerges in early spring.

35. *Celama innocua*. (Plate XVIII. fig. 25.)

Nola innocua, Butl. P. Z. S. 1880, p. 671; Kirby, Cat. Het. p. 379.

Nola costimacula, Stgr. Rom. Mém. iii. p. 182, pl. 10. f. 6 (1887); Kirby, Cat. Het. p. 374.

White; palpi brown at sides; tibiæ and tarsi banded with brown; abdomen with blackish tuft on 1st segment. Fore wing tinged with fulvous; an elongate fulvous patch at base of costa, with some black scales on its lower edge; fulvous antemedial and medial triangular patches on costa, with tufts of black scales at their lower extremities, the former with the antemedial black line arising from it, slightly angled in submedian fold, then oblique; the postmedial punctiform line bent outwards below costa and inwards below vein 3; an irregularly-waved subterminal indistinct line bent inwards to costa. Hind wing with the terminal half tinged with brown, especially the veins; a fine terminal line.

Hab. AMUR, type † ♂ *costimacula* in Coll. Staudinger; FORMOSA (Hobson), 1 ♀ type. *Exp.* 14-16 millim.

Subsp. 1. Fore wing with the antemedial line less angled below the cell. *Hab.* Japan.

36. *Celama minna*. (Plate XVIII. fig. 19.)

Nola minna, Butl. A. M. N. H. (5) viii. p. 315 (1881); Kirby, Cat. Het. p. 378.

Nola hyemalis, Stretch, Ent. Am. i. p. 102 (1885); Kirby, Cat. Het. p. 374.

♂. White, slightly irrorated with brown; palpi brown at sides;

abdomen tinged with brown. Fore wing with elongate rufous patch at base of costa: an oblique antemedial series of points with large tuft of scales on it in cell; a postmedial series of points angled below costa and incurved below vein 3; an indistinct irregularly sinuous subterminal line. Hind wing white.

Hab. U.S.A., California, Mendocino Co. (*Walsingham*), 3 ♂, type. *Exp.* 26 millim.

37. *Celama cicatricalis*.

Hereyna cicatricalis, Treit. Schmett. Eur. x. (3) p. 39 (1835); Herr.-Schäff. Schmett. Eur. ii. p. 164, ff. 134, 136; Staud. Cat. p. 51; Kirby, Cat. Het. p. 372.

Nola tubercularis, Mann. Wien. ent. Mon. i. p. 148 (1857).

Grey, suffused and thickly irrorated with fuscous. Fore wing with small tufts of scales near base and at middle and end of cell; an oblique subbasal fuscous striga from costa; the antemedial line strongly angled in cell; an oblique streak from costa to upper angle of cell: the postmedial line dentate, bent outwards from below costa to vein 2, then with a line parallel to its inner edge; an obscure irregularly sinuous subterminal line defined by some white scales; cilia with fuscous patches. Hind wing pale fuscous, with discoidal point.

Hab. FRANCE; GERMANY, Zell. Coll.; HUNGARY, Frey Coll.; SWITZERLAND; ITALY; DALMATIA, Fiume, *tubercularis*, Zell. Coll.; RUSSIA, Sarepta. *Exp.* 22 millim.

38. *Celama angulata*.

Ræselia angulata, Moore, P. Z. S. 1888, p. 393; Butl. Ill. Het. vii. p. 34, pl. 122, f. 14; Hmps. Moths Ind. ii. p. 140; Kirby, Cat. Het. p. 378.

Whitish, slightly suffused with fuscous brown. Fore wing with subbasal, antemedial, and medial fuscous-brown patches on costa, with tufts of raised scales at their lower extremities; a strong blackish antemedial line angled outwards to the 2nd tuft below costa, then oblique and obsolescent towards inner margin; traces of a sinuous line from the tuft at end of cell to inner margin; a postmedial minutely dentate line excurved from below costa to vein 2; an irregularly sinuous subterminal line strongly bent inwards to costa; some dark points on termen. Hind wing tinged with fuscous.

Hab. N.W. HIMALAYAS, Solun, 2 ♀, Kangra (*Hocking*), 2 ♂, 2 ♀ type; CEYLON, Moore Coll., 1 ♂. *Exp.* 18-20 millim.

39. *Celama centonalis*.

Pyralis centonalis, Hubn. Eur. Schmett. f. 15 (1827); Dup. Lép. Fr. viii. (2) p. 275, pl. 228, f. 5; Herr.-Schäff. Eur. Schmett. ii. p. 164, ff. 141, 142; Staud. Cat. p. 52.

Phalana angula, Hubn. Vögel u. Schmett. pl. 61 (1827); Kirby, Cat. Het. p. 374.

Glaphyra atomosa, Brem. Bull. Acad. Sci. Pétersb. iii. p. 491 (1861); Lep. Ost-Sib. p. 55, pl. 5, f. 16.

Nola candidalis, Staud. Rom. Mém. vi. p. 258 (1892).

? *Nola impudica*, Christ. Deutsch. ent. Zeit., Lep. vi. p. 88 (1893).

Head and thorax white; abdomen pale brown with white segmental bands. Fore wing whitish, more or less completely suffused with pale yellow-brown and irrorated with fuscous, the basal, inner medial, and postmedial areas usually with white patches; tufts of fuscous scales near base, in middle, and at upper angle of cell; an obscure curved antemedial line; the postmedial line acutely angled below costa, then obliquely sinuous, and with an obscure waved diffused fuscous line on its inner side; a more or less prominent irregularly sinuous subterminal line; the termen brown or with patches of brown; a fine dark terminal line and line through the cilia. Hind wing whitish, more or less suffused with fuscous-brown especially in male; a fine dark terminal line.

Ab. 1. *candidalis*. Fore wing with the medial area more uniformly dark.

Hab. BRITAIN; CENTR. and S. EUROPE; LIVONIA, Frey and Zell. Colls.; CORSICA; KIRGHISTAN; TRANSCAUCASIA; ARMENIA, ♀ cotype *candidalis*; AMUR. *Exp.* 20 millim. Type † *candidalis* in Coll. Staudinger.

Larva, Meyrick, Lep. Brit. p. 32; Barrett, Brit. Lep. p. 190, pl. 66. f. 4.

Dull pink or purplish pink; hairs grey-brown; dorsal line ochreous yellow, interrupting a series of black V-shaped marks; a subdorsal series of black linear marks; spiracular line very faint, yellowish; head black-brown. Food-plants, *Trifolium*, *Lotus*, etc.; 9-5.

Subsp. 1. *turanica*, Staud. Stett. ent. Zeit. xlviii. p. 77 (1887); Kirby, Cat. Het. p. 375.

Smaller: hind wing of male with hardly a trace of brown suffusion.

Hab. C. ASIA, Marghelan, 1 ♀. *Exp.* 15 millim. Type † in Coll. Staudinger.

40. *Celama thymula*.

Nola thymula, Mill. Ann. Soc. Linn. Lyon, xvi. p. 9, pl. 85. ff. 11, 13 (1868); Staud. Cat. p. 52; Kirby, Cat. Het. p. 374.

Grey suffused with fuscous. Fore wing with slight tufts of scales near base and at middle and end of cell; the antemedial line angled below costa, then oblique, black, prominent; the postmedial line acutely angled below costa, incurved between veins 3 and 1, and with traces of a line parallel to its inner edge; an irregularly sinuous subterminal line; some brown spots on costa towards apex; cilia irrorated with fuscous. Hind wing pale fuscous.

Hab. S. FRANCE, Frey Coll.; SPAIN, Zell. Coll. *Exp.* 20 millim.

41. *Celama confusalis*.

Nola cristulalis, Dup. Lép. Fr. viii. (2) p. 269, pl. 227. ff. 6, 7 (1832), nec Hubn.

Raselia confusalis, Herr.-Schäff. Schmett. Eur. ii. p. 164 (1851); Staud. Cat. p. 52; Kirby, Cat. Het. p. 373.

Grey: head and thorax strongly irrorated with brown; legs and abdomen banded with fuscous. Fore wing strongly irrorated with



Fig. 7.—*Celama confusalis*, ♂. 1.
(From Moths Ind. vol. ii.)

brown; small tufts of scales near base and at middle and end of cell, the two latter placed at extremities of oblique elliptical brownish spots on costa; an ante-medial fuscous line angled in cell; the postmedial line black, punctiform, excurved from below costa

to vein 2, where it is angled inwards, slightly angled outwards on vein 1: an irregularly-waved obscure subterminal line, strongly bent inwards to costa; cilia fuscous. Hind wing tinged with fuscous, especially towards apex; a discoidal point.

Hab. BRITAIN; FRANCE; BELGIUM; GERMANY, Zell. and Frey Colls. *Exp.* 22 millim.

Larva, Meyr. Lep. Brit. p. 53; Barrett, Brit. Lep. p. 188, pl. 65. f. 3.

Dull reddish; dorsal area yellowish; hairs brownish, some much longer: dorsal line double, black, interrupted and forming ferruginous V-shaped marks on somites 7-9; subdorsal line black. Food-plants, *Quercus*, *Pomus*, etc.; 7-10.

42. *Celama squalida*.

Nola squalida, Staud. Berl. ent. Zeit. xiv. p. 102 (1870); Mill. Icon. Lep. iii. p. 407, pl. 150. ff. 15, 16; Kirby, Cat. Het. p. 375.

Nola musculalis, Saalm. Ber. Senck. Ges. 1879, p. 261 (1880); id. Lep. Madag. i. p. 171, pl. 6. f. 85; Kirby, Cat. Het. p. 371.

Raselia fraterna, Moore, P. Z. S. 1888, p. 393.

Nola cyclonica, Hmps. Ill. Het. ix. p. 88, pl. 158. f. 13 (1893); id. Moths Ind. ii. p. 141.

Nola van hasseltii, Heyl. C.R. Soc. Ent. Belge, xxxvi. p. 44 (1892); Kirby, Cat. Het. p. 916.

Sorocostia desmotes, Turner, Trans. R. Soc. S. Austr. 1899, p. 15.

Head and thorax grey-brown. Fore wing grey, suffused with brown and irrorated with a few black scales; small tufts of fuscous scales near base and at middle and end of cell; a blackish ante-medial line angled outwards below cell; the medial area with whitish band; the postmedial line black, punctiform, slightly incurved between veins 3 and 1, with brown suffusion on its inner edge and whitish on its outer; an indistinct irregularly sinuous subterminal line. Hind wing white, suffused with fuscous towards apex; a dark discoidal point.

Hab. SPAIN, Malaga, type ♂ in Coll. Standinger; SYRIA, Beirut, 1 ♂; MADAGASCAR, type ♂ *musculalis* in Mus. Frankfort; CHINA, Shanghai; N.W. HIMALAYAS, Simla (*Harford, Pilcher*), 3 ♂, 1 ♀, Kangra (*Hocking*), type *fraterna*; SIKHIM (*Pilcher*); BHUTAN (*Dudgeon*)

SIND, Karáchi (*Swinhoe*); BOMBAY (*Swinhoe*); CEYLON (*Green, Pole*), type *ceylonica*; PULO LAUT (*Doherty*); JAVA, Preanger, type † ♀ *van hasseltii* in Coll. Heylaerts; QUEENSLAND, type † *desmotes* in Coll. Turner; TONGA (*Mathew*). *Exp.* 1.4 millim.

43. *Celama pumila*.

Nola pumila, Snell. Tijd. v. Ent. xvii. p. 68, pl. 6. f. 4 (1874); Kirby, Cat. Het. p. 374.

Nola spreta, Butl. P. Z. S. 1880, p. 671; Kirby, Cat. Het. p. 379.

Sorocostia tetrophthalma, Meyr. Trans. Ent. Soc. 1889, p. 463; Kirby, Cat. Het. p. 377.

Nola minuta, Hmps. Ill. Het. B.M. viii. p. 48, pl. 139. f. 14 (1891).

Nola hampsoni, Kirby, Cat. Het. p. 376 (1893); Hmps. Moths Ind. ii. p. 141.

Brown irrorated with black scales; abdomen with blackish dorsal tuft at base. Fore wing with slight tufts of blackish scales at middle and end of cell; base of costa blackish; an obscure diffused blackish antemedial line angled below cell; a postmedial series of black points angled inwards below vein 2; an obscure irregularly sinuous subterminal line. Hind wing whitish, tinged with fuscous towards termen; a discoidal point.

Hab. SOKOTRA (*W. R. O. Grant*), 9 ♂ ♀; CHINA, Shanghai; FORMOSA (*Hobson*), type *spreti*; SIKHIM (*Pilcher*); ASSAM, Khásis; BOMBAY (*Swinhoe*); NILGIRIS (*Hampson*), type *minuta*; BURMA, Rangoon; BORNEO, Sarawak (*Wallace*); CELEBES; NEW GUINEA, Port Moresby, type † *tetrophthalma* in Coll. Meyrick. *Exp.* 1.4 millim.

*44. *Celama ægyptiaca*.

Nola ægyptiaca, Snell. Tijd. v. Ent. xvii. p. 67, pl. 6. f. 3 (1874); Kirby, Cat. Het. p. 373.

♂. Reddish brown irrorated with fuscous. Fore wing with somewhat darker patch at base of costal area; the antemedial line oblique from costa to middle of cell, where it is angled, then inwardly oblique and slightly angled on median nervure and vein 1; the tuft of scales in middle of cell and a spot on middle of costa blackish; the postmedial line black, punctiform, curved from costa to vein 3, then bent inwards below end of cell, more prominently black and with a less distinct line on its inner side; an irregularly-waved subterminal line; a dark line at base of cilia. Hind wing white, the veins and costa and termen towards apex brownish.

Hab. EGYPT, Cairo, type † ♂ in Coll. Staudinger. *Exp.* 1.8 millim.

45. *Celama ovilla*. (Plate XVIII. fig. 17.)

Nola ovilla, Grote, Can. Ent. vii. p. 221 (1875); Kirby, Cat. Het. p. 373.

Head and thorax white irrorated with fuscous; abdomen ochreous whitish. Fore wing whitish, tinged with brown and irrorated with fuscous. Fore wing with slight tufts of scales near base and at middle and end of cell; the antemedial line blackish, angled below

costa, then oblique; some fuscous points on costa and an oblique striga to upper angle of cell; the postmedial line punctiform, angled below costa and incurved below vein 3; traces of an irregular subterminal line. Hind wing white, tinged with brown towards apex; a discoidal point.

Hab. U.S.A., Atlantic States, Ontario, Grote Coll., 3 ♂, type. *Exp.* 20 millim.

Larva, Dyar, Psyche, vi. p. 110.

Body broad, short, much flattened, with four pairs of prolegs; each segment with four dorsal tubercles with dusky hairs; larger lateral tubercles with longer hairs; length 13 millim. Food-plant, *Oak*, hiding on the bark.

Cocoon. Boat-shape, flattened; attached to surface of leaf and formed of silk lined with bits of leaves.

46. *Celama clethræ*. (Plate XVIII. fig. 20.)

Nola clethræ, Dyar, Can. Ent. 1899, p. 62.

♀. Head and thorax white; palpi blackish at sides, head slightly irrorated with fuscous, tegulae barred with black, thorax strongly irrorated with bluish fuscous, abdomen paler. Fore wing bluish grey irrorated with fuscous; the basal half of costal edge black; a subbasal striga from costa and a short streak on subcostal nervure; the antemedial line rather indistinct, very acutely angled in cell, then oblique; the tufts of scales at middle and end of cell rather large; some black points on costa; the postmedial line punctiform, angled at vein 5, then oblique, and with traces of a band on its inner side; an indistinct irregular subterminal line. Hind wing grey suffused with fuscous; a dark discoidal point.

Hab. U.S.A., N. York (*Dyar*), 1 ♀ cotype. *Exp.* 20 millim.

Egg, Dyar, Can. Ent. 1899, p. 62.

Egg flattened above, somewhat elliptical; sides 25-ribbed, with a waved line on the surface of each rib, with fine parallel cross-striae forming elongate cells, the flattened vertex finely reticulate; size $4\cdot5 \times 3$ millim.: laid on under surface of older leaves near a vein.

Larva. Stage I. Translucent whitish, showing the green food; head 2 millim.; hairs single, the primary ones only present; on abdomen ii. is large and black, alternating, leaning outwards on somites 7, 9, 11, the other hairs pale, iv. very long, v. shorter and pale; hair i. shorter than ii.; iv., v. approximate, iv. scarcely higher than v.; on thorax i. a small, i. b large and black; ii. a & b close together, the former very small; v. long, vi. very small; hairs fine, not glandular, slightly spinulose; skin with fine spinules.

Stages II., III. rather opaque white; warts in four rows, i. & ii. and iv. & v. coalesce; hairs short, bristly, brownish.

Stage IV. Warts large, spiracles brown; hairs pale, the shorter ones brown-tipped.

Stage V. Head with the mouth brown, a dark grey patch at apex of each lobe; the three upper rows of warts large, the lower small; body short and thick; translucent white, shaded round base

of each wart and with irregular dorsal and lateral dark grey stripes; the large warts of cervical shield brown behind; hairs short, bristly, with brown tubercles and tips; a few long pale hairs from extremities and third wart; body dark above spiracles. Food-plant, *Clethra atrifolia*.

Cocoon on a twig, triangular, formed of pieces of bark.

47. *Celama melalopha*, n. sp. (Plate XVIII. fig. 21.)

♀. Whitish, irrorated with brown and fuscous scales; palpi reddish brown at sides. Fore wing with small brown tufts of scales near base and at upper angle of cell and a black tuft at middle; a series of small brown spots on costa; an indistinct oblique fuscous antemedial line from cell to inner margin; the postmedial line punctiform, black, excurved from vein 6 to 3, then strongly incurved; an indistinct, irregularly sinuous, diffused fuscous subterminal line bent inwards to costa; a terminal series of fuscous points. Hind wing semihyaline white, tinged with fuscous towards apex.

Hab. W. AFRICA, Accra (*Carter*), 3 ♀ type. *Exp.* 16 millim.

48. *Celama flexuosa*. (Plate XVIII. fig. 26.)

Nola flexuosa, Pouj. Bull. Soc. Ent. Fr. (6) vi. p. clxvii (1887); Kirby, Cat. Het. p. 372.

Ræselia sikkima, Moore, Lep. Atk. p. 287 (1888); Hmps. Moths Ind. ii. p. 140; Kirby, Cat. Het. p. 375.

♂. Grey, more or less suffused with pale reddish brown. Fore wing with small tufts of scales at middle and end of cell; a curved antemedial line; the medial area often strongly suffused with red-brown, especially towards the two minutely dentate postmedial lines, which are excurved from costa to vein 3, then slightly incurved; an irregular subterminal line defined by white on outer side and angled outwards below costa and at middle. Hind wing white, slightly tinged with fuscous towards termen; a discoidal point.

♀. Hind wing pale fuscous.

Hab. TIBET, Moupin; SIKHIM, type *sikkima*, Moore Coll. (*Pilcher*). *Exp.*, ♂ 20, ♀ 22 millim.

49. *Celama karelica*.

Nola karelica, Tengstr. Not. Faun. Flor. Fenn. x. p. 298 (1869); Staud. Cat. p. 52; Kirby, Cat. Het. p. 375.

Nola arctica, Schøy. Arch. f. Math. og Naturv. v. p. 172, ff. 1, 2 (1880).

Nola obsoleta, Reuter, Medd. Soc. Faun. Flor. Fenn. xix. p. 122 (1893).

♀. Head and thorax white; palpi brown at sides; abdomen tinged with fuscous. Fore wing white; some brown marks on basal costal area; a curved yellow-brown antemedial line not reaching inner margin; tufts of raised fuscous scales at middle and

end of cell; the postmedial line minutely dentate, excurved from below costa to vein 2 and with a broad diffused area of yellow-brown on its inner side; a subterminal irregular diffused yellow-brown line; some spots on costa towards apex and a terminal series; cilia brown intersected with white. Hind wing fuscous brown; cilia greyish.

Hab. FINLAND, 1 ♀ Zell. Coll. *Exp.* 24 millim.

Subsp. 1. *inconspicua*, Alph. Hor. Soc. Ent. Ross. xvii. p. 24, pl. i. f. 30 (1882); Kirby, Cat. Het. p. 374.

Fore wing with the median area suffused with rufous, except beyond the antemedial line on inner area, leaving the tufts of scales white; the whole outer area suffused with rufous from near post-medial line.

Hab. MONGOLIA, Kulja, in Coll. Staudinger.

50. *Celama polia*, n. sp. (Plate XVIII. fig. 22.)

Greyish white; palpi tinged with fuscous at sides; tarsi ringed with fuscous. Fore wing irrorated with pale fuscous; some black points on costa; small tufts of fuscous scales at middle and end of cell; the antemedial line hardly traceable except below cell; a punctiform black postmedial line strongly bent outwards from below costa to vein 3, then incurved and with traces of a line parallel to its inner edge; an irregular subterminal line angled outwards below apex and at middle; obscure fuscous spots on termen and cilia. Hind wing white, tinged with fuscous towards apex; a discoidal point.

Hab. SIKHIM, 7000 feet (*Pilcher*), 3 ♂, 1 ♀ type. *Exp.* 18–20 millim.

51. *Celama ancipitalis*.

Rasdia ancipitalis, Herr.-Schäff. Schmett. Eur. ii. p. 165, ff. 132, 133 (1848); Staud. Cat. p. 52; Kirby, Cat. Het. p. 374.

♀. White slightly irrorated with brown; abdomen banded with brown. Fore wing with small tufts of scales near base and at middle and end of cell; the costa brownish; traces of a double antemedial line below the cell; a diffused medial shade; the post-medial line indistinct, curved from costa to vein 3 and slightly incurved between veins 3 and 1; some brownish spots on costa towards apex; an indistinct irregularly sinuous subterminal line. Hind wing pale brownish.

Hab. CROATIA, Zell. Coll. *Exp.* 22 millim.

52. *Celama meridionalis*. (Plate XVIII. fig. 23.)

Nola meridionalis, Wllgrn. (Efv. Vet.-Akad. Förh. xxxii. (1) p. 99 (1876); Kirby, Cat. Het. p. 372.

♂. Head and thorax fuscous brown; abdomen brownish white. Fore wing fuscous brown; small tufts of blackish scales near base

and at middle and upper angles of cell; a black point at base; a rather prominent strongly-curved black antemedial line; the postmedial line indistinct, strongly excurved from below costa to vein 3; an indistinct subterminal line, angled below costa, then straight. Hind wing white, tinged with fuscous towards apex.

Hab. TRANSVAAL, Pretoria (*Distant*), 2 ♂. *Exp.* 20 millim.

53. *Celama phæochroa*, n. sp. (Plate XVIII. fig. 24.)

♀. Grey; head and thorax strongly irrorated with fuscous; abdomen banded with fuscous. Fore wing irrorated with fuscous; a diffused blackish patch at base of costa; small tufts of blackish scales near base and at middle and upper angle of cell; an oblique antemedial series of black points arising from a blackish patch at middle of costa; a postmedial series of points slightly curved below costa, then oblique, and ending in a blackish patch on inner margin, connected with the patch on costa by some obscure points; an irregularly sinuous subterminal line with slight dark streaks on it at the veins; a terminal series of black points. Hind wing whitish, tinged with fuscous towards apex.

Ab. 1. 18 millim. Fore wing more evenly suffused with fuscous. Sikkim, 1 ♀.

Hab. SIKKIM, 7000 ft. (*Pilcher*), 4 ♀, type; JAVA, Mt. Arjuno (*Doherty*), 1 ♀. *Exp.* 21–23 millim.

54. *Celama tineoides*. (Plate XVIII. fig. 27.)

Micra tineoides, Wlk. xii. 824 (1857).

Aradrapha partitalis, Wlk. xxxiv. 1182 (1865).

Nola caffa, Willgrn. Cefv. Vet.-Akad. Förh. xxxii. p. 100 (1876); Kirby, Cat. Het. p. 372.

♂. Head, thorax, and abdomen white suffused with brown. Fore wing grey, irrorated with raised white and blackish scales and suffused with reddish brown, deepening to the straight oblique postmedial line, with the area beyond it paler; traces of a sinuous subterminal line; the termen reddish brown. Hind wing white, with fine terminal dark line.

♀. Fore wing more uniformly suffused with brown; hind wing tinged with fuscous, especially towards apex.

Hab. NATAL (*Gueinzus*), type *partitalis* (*Hutchinson*); CAPE COLONY, type (*Miss F. Barrett*). *Exp.* 16 millim.

*55. *Celama irenica*. (Plate XVIII. fig. 28.)

Sorocostia irenica, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 720 (1886); Kirby, Cat. Het. p. 377.

♂. Head and thorax white; palpi at sides and tegulae tinged with grey; abdomen grey. Fore wing white; small tufts of fuscous scales near base and at middle and upper angle of cell; the basal area suffused with grey-brown, its outer edge very oblique and ill-defined; an oblique medial white band before the broad

grey-brown band from costa before apex to middle of inner margin; the costal area grey-brown near apex, with two white points on it; a terminal grey-brown band. Hind wing very pale fuscous brown.

Hab. N. S. WALES, Mt. Kosciusko, 1 ♂ type † in Coll. Meyrick. *Exp.* 20 millim.

***56. *Celama hesycha*. (Plate XVIII. fig. 29.)**

Sorocostia hesycha, Meyr. P. Linn. Soc. N. S. W. (2) ii. p. 922 (1888); Kirby, Cat. Het. p. 377.

♂. White; head, thorax, and abdomen irrorated with grey-brown scales. Fore wing thickly irrorated with grey-brown; small tufts of fuscous scales near base, in end of cell, and at upper angle: a very oblique white line from costa to lower angle of cell, somewhat interrupted below costa; the postmedial line prominent, white, oblique and bent slightly outwards to apex. Hind wing slightly suffused with brown towards apex and termen.

Hab. W. AUSTRALIA, Carnarvon, 1 ♂ type † in Coll. Meyrick. *Exp.* 18 millim.

***57. *Celama paromœa*. (Plate XVIII. fig. 30.)**

Sorocostia paromœa, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 721 (1886); Kirby, Cat. Het. p. 377.

♀. Head and thorax white; palpi at sides and patagia irrorated with brown; abdomen brownish. Fore wing white, slightly irrorated with brown; tufts of brownish scales near base and in middle of cell; an indistinct antemedial brown line angled outwards in cell, then reduced to points on median nervure and vein 1; an oblique postmedial brown band diffused on inner side, arising from costa before apex and dentate inwards below costa; the costa brown, with some white points towards apex; a terminal brown band narrowing to apex and tornus. Hind wing suffused with pale brown; the cilia white.

Hab. QUEENSLAND, Durringa, 1 ♀ type † in Coll. Meyrick. *Exp.* 16 millim.

58. *Celama albalis*.

Hyppena albalis, Wlk. xxxiv. 1143 (1865); Kirby, Cat. Het. p. 377.

Eromene vetustella, Wlk. xxxv. 1763 (1866).

Nola strictalis, Zell. Verh. zool.-bot. Ges. Wien, xxii. p. 459, pl. 2. f. 3 (1872).

Head and thorax white, the latter slightly irrorated with brown; abdomen brown. Fore wing pale yellowish brown; small tufts of fuscous scales near base and at upper angle of cell, and a larger tuft at middle of cell; a diffused irregular subcostal white streak from base to upper angle of cell; the basal inner area suffused with white; an oblique rather irregular postmedial blackish line from costa towards apex to middle of inner margin, strongly defined by white on outer side and angled outwards below vein 2; an irregular

interrupted subterminal white line; cilia irrorated with white. Hind wing pale brownish.

Hab. AUSTRALIA, type, and type *strictalis*, Zell. Coll.; N. S. WALES (*Raynor*, *Mathew*); VICTORIA (*Anderson*); TASMANIA. *Exp.* 20–24 millim.

59. *Celama biguttalis*. (Plate XVIII. fig. 31.)

Tribunta biguttalis, Wlk. xxxiv. 1507 (1865); Kirby, Cat. Het. p. 376.

Sorocostia trigonota, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 719 (1886).

Brownish grey; palpi rather darker at sides; abdomen with dark dorsal tuft at base. Fore wing with small tufts of blackish scales near base and at upper angle of cell and larger tuft at middle of cell; irrorated with fuscous and suffused with olive-brown on basal half of costal area and terminal area; an oblique black striga from costa near base; a fine antemedial black line minutely dentate and twice-angled outwards in cell; the postmedial line reduced to a series of black points on the veins, angled outwards at vein 5, then oblique and with a brown line on its inner side acutely angled inwards on vein 1; an indistinct oblique subterminal line slightly angled at middle and crossed by black streaks on the veins of terminal area. Hind wing tinged with fuscous.

Ab. 1. Head, thorax, and fore wing entirely suffused with violaceous grey; the postmedial line continuous.

Hab. AUSTRALIA (*Daniel*), 1 ♂ type, Melbourne (*Anderson*), 3 ♂ 1 ♀. *Exp.* 20–22 millim.

60. *Celama microlopha*, n. sp. (Plate XVIII. fig. 32.)

♂. White; palpi pale yellow-brown at sides; thorax and abdomen tinged with brown. Fore wing with the tufts of scales in cell minute; an antemedial yellow-brown line obtusely angled on median nervure; the postmedial line indistinct, oblique from costa to vein 5, where it is angled, and slightly angled inwards at vein 2, the area beyond it below vein 5 suffused with yellow-brown.

Hab. W. AFRICA, Accra (*Carter*), 1 ♂ type. *Exp.* 12 millim.

Genus NOLA.

Type.

<i>Nola</i> , Leach, Edinb. Encycl. ix. p. 135 (1815)	<i>cucullatella</i> .
<i>Dimona</i> , Wlk. xv. 1650 (1858) ..	<i>porrigens</i> .
<i>Manoba</i> , Wlk. Journ. Linn. Soc., Zool. vii. p. 62 (1863).....	<i>implens</i> .
<i>Selca</i> , Wlk. xxxiv. 1218 (1865)	<i>latifascialis</i>
<i>Tribunta</i> , Wlk. xxxiv. 1506 (1865).....	<i>scabralis</i> .
<i>Stenola</i> , Möschl. Abh. Senck. Ges. xvi. p. 119 (1890)	<i>bistriga</i> .
<i>Rhynchopalpus</i> , Hmps. Moths Ind. ii. p. 142 (1894).....	<i>argentalis</i> .

Proboscis well developed; palpi porrect, extending once to twice the length of head, roughly scaled above and below, the 3rd joint moderate; maxillary palpi minute; frons with tuft of scales; antennæ with tuft of scales on the basal joint; tibiae with the spurs long. Fore wing triangular; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8 stalked;

9 absent; 10 from 8 near costa; 11 oblique. Hind wing with vein 3 from angle of cell; 4 absent; 5 from near middle of discocellulars or well above angle of cell; 6, 7 stalked; 8 from middle of cell.

SECT. I. (*Selea*). Antennæ of male bipectinate with long branches, simple towards apex.

- | | |
|--|-----------------------|
| A. Fore wing with the ground-colour red-brown, strongly suffused with fuscous to middle | <i>tenebrosa.</i> |
| B. Fore wing with the ground-colour greyish. | |
| <i>a.</i> Fore wing suffused with red-brown to the postmedial line, black streaks on the veins and an oblique fascia above inner margin .. | <i>loxoscia.</i> |
| <i>b.</i> Fore wing with reddish-brown suffusion between the ante- and postmedial lines | <i>latifascialis.</i> |
| <i>c.</i> Fore wing wholly suffused with reddish brown..... | <i>pulverca.</i> |
| <i>d.</i> Fore wing with reddish-brown suffusion beyond the antemedial line and on termen | <i>impura.</i> |
| <i>e.</i> Fore wing with reddish-brown suffusion before the postmedial line and on termen | <i>brunella.</i> |
| <i>f.</i> Fore wing without red-brown suffusion. | |
| <i>a</i> ¹ . Fore wing with the ante- and postmedial lines represented by prominent oblique series of black spots | <i>punctilineata.</i> |
| <i>b</i> ¹ . Fore wing with the lines continuous or punctiform. | |
| <i>a</i> ² . Fore wing with blackish subbasal and medial patches on costa. | |
| <i>a</i> ³ . Ground-colour dark fuscous grey..... | <i>phæa.</i> |
| <i>b</i> ³ . Ground-colour whitish grey. | |
| <i>a</i> ⁴ . Fore wing with the blackish patches subquadrate, large. | |
| <i>a</i> ⁵ . Fore wing with the postmedial line continuous, dentate. Exp. 36 millim. ... | <i>argentalis.</i> |
| <i>b</i> ⁵ . Fore wing with the postmedial line punctiform. Exp. 24 millim..... | <i>melanota.</i> |
| <i>b</i> ⁴ . Fore wing with the blackish patches subtriangular, smaller. | |
| <i>a</i> ⁵ . Fore wing without black spot on inner margin at the postmedial line. | |
| <i>a</i> ⁶ . Fore wing with the medial part of the postmedial line dentate..... | <i>distributa.</i> |
| <i>b</i> ⁶ . Fore wing with the medial part of the postmedial line not dentate | <i>præfica.</i> |
| <i>b</i> ⁵ . Fore wing with black spot on inner margin at the postmedial line..... | <i>tristicta.</i> |
| <i>b</i> ² . Fore wing without blackish patches on costa. | |
| <i>a</i> ³ . Fore wing brownish grey, strongly irrorated with fuscous | <i>solvita</i> (♀). |
| <i>b</i> ³ . Fore wing whitish, slightly irrorated with fuscous. | |
| <i>a</i> ⁴ . Fore wing irrorated with small fuscous scales | <i>microphasma.</i> |
| <i>b</i> ⁴ . Fore wing irrorated with small black scales | <i>apera.</i> |

61. *Nola tenebrosa*.

Nola tenebrosa, Hmps. Moths Ind. iv. p. 504 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 24.

♀. Head and thorax reddish brown; palpi irrorated with black

at sides; patagia at extremities and metathorax blackish; abdomen fuscous. Fore wing reddish brown, irrorated and suffused with fuscous, especially on basal half; small tufts of blackish scales near base and at middle and upper angle of cell; the antemedial line indistinct, angled outwards in cell and below vein 1, and inwards in submedian fold; the postmedial line acutely angled below costa, then oblique and slightly angled at vein 5; an irregularly sinuous fuscous subterminal line retracted to costa; a terminal series of black points; some fuscous spots on costa. Hind wing fuscous; cilia with a dark line through them.

Hab. BHUTÁN (*Dudgeon*), 1 ♀ type. *Exp.* 22 millim.

62. *Nola loxoscia*, n. sp. (Plate XVIII. fig. 33.)

Head and thorax pale reddish brown; palpi blackish at sides; tegulae and mesothorax with black bands, metathorax with black patch; abdomen fuscous, with dark dorsal tuft at base. Fore wing pale, suffused with red-brown to the postmedial line; small tufts of scales near base and at middle and end of cell; the subcostal and median nervures and bases of veins 3, 4 streaked with black; an oblique black shade from vein 2 to inner margin before middle; the postmedial line reduced to a curved series of black points; an interrupted irregularly sinuous subterminal line strongly retracted to costa; termen rufous. Hind wing whitish, suffused with fuscous towards termen, especially in female.

Hab. SIKHIM, 7000 ft. (*Pilcher*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

*63. *Nola latifascialis*. (Plate XVIII. fig. 34.)

Selca latifascialis, Wlk. xxxiv. 1219 (1865); Swinh. Cat. Het. Mus. Oxon. p. 132.

♂. Head, thorax, and abdomen white; palpi and frontal tuft rufous at sides, irrorated with black. Fore wing slightly irrorated with fuscous; a black point below base of costa; the ante- and postmedial lines blackish, the former angled in and below cell, the latter incurved below vein 4, the area between them suffused with red-brown and irrorated with black, especially below middle of vein 2; the tufts of scales rather small, the tuft at upper angle of cell mostly black; an indistinct irregularly sinuous subterminal line; the termen suffused with brown. Hind wing fuscous, paler towards base.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ type † in Mus. Oxon. *Exp.* 16 millim.

64. *Nola pulvereana*, n. sp. (Plate XIX. fig. 1.)

Head, thorax, and abdomen whitish, thickly irrorated with reddish brown; palpi darker at sides. Fore wing whitish, thickly and evenly irrorated and suffused with reddish brown; an indistinct antemedial line slightly angled outwards on median nervure and inwards

on vein 1; the postmedial line acutely angled below costa, slightly incurved and with dark suffusion on its inner side from vein 4 to inner margin; an irregularly sinuous subterminal line; a terminal series of dark points. Hind wing white with discoidal lunule; the termen tinged with brown.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♂ type. *Exp.* 20–26 millim.

65. *Nola impura*.

Nola impura, Mann, Wien. ent. Mon. vi. p. 368, pl. 3. f. 3 (1862); Kirby, Cat. Het. p. 375.

Head, thorax, and abdomen grey slightly tinged with red-brown; palpi and legs red-brown mixed with grey. Fore wing grey irrorated and suffused with red-brown, especially on base of costal area; a broad band on medial area, and another from just beyond the postmedial line to termen; the antemedial line indistinct, grey, curved; the postmedial line somewhat angled below costa and incurved below vein 4; an indistinct dark irregularly sinuous subterminal line. Hind wing grey suffused with reddish brown, especially towards termen, in female darker.

Hab. SYRIA, Brussa, type † ♂ in Coll. Staudinger, Beirut 1 ♀. *Exp.* 24 millim.

66. *Nola brunella*.

Rhynchopalpus brunellus, Hmps. Ill. Het. ix. p. 89, pl. 158. f. 31 (1893); Moths Ind. ii. p. 143.

Head and thorax white; palpi, antennæ, and abdomen brownish. Fore wing white, tinged with reddish brown and irrorated with black scales; small tufts of scales near base and at middle and upper angle of cell; the antemedial line represented by a series of black points strongly angled in cell; a black point at upper angle of cell and one on costa above it; a very oblique postmedial series of black points slightly angled outwards at vein 5 and with a band of rufous suffusion before it; the terminal area suffused with rufous; an irregularly sinuous subterminal line; a terminal series of black points. Hind wing whitish. Palpi very long.

Hab. SIKHIM (*Pitcher*), 1 ♀; ASSAM, Naga Hills; CEYLON, Pundaloya (*Green*), 1 ♂, 1 ♀ type. *Exp.* 20 millim.

67. *Nola punctilineata*.

Nola punctilineata, Hmps. Moths Ind. iv. p. 503 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 25.

♀. Grey-brown; palpi black at sides; meso- and metathorax with paired black spots; pectus and legs blackish. Fore wing irrorated with black; slight tufts of raised scales near base and at middle and end of cell; a short black streak below base of costa; a very oblique antemedial series of three small black spots; a diffused black medial shade; an oblique postmedial series of black points slightly excurved between veins 5 and 3; an irregular sub-

terminal series of small spots and a terminal series of points. Hind wing fuscous, with dark discoidal mark.

Hab. BHUTAN (*Dudgeon*), 1 ♀ type. *Exp.* 22 millim.

68. *Nola phæa*, n. sp. (Plate XIX. fig. 2.)

♀. Greyish fuscous irrorated with black. Fore wing with blackish patch at base of costa; traces of a curved antemedial line; an ill-defined subtriangular blackish patch on middle of costa; an indistinct oblique postmedial line dentate between veins 5 and 2; traces of a sinuous subterminal line.

Hab. CHINA, Ichang (*Hobson*), 3 ♀ type. *Exp.* 20–24 millim.

69. *Nola argentalis*.

Aglossa argentalis, Moore, P. Z. S. 1867, p. 89; *Hmps. Moths Ind.* ii. p. 143.

Head and tegulæ white; palpi with the 2nd joint black at sides;



Fig. 8.—*Nola argentalis*, ♂. $\frac{1}{2}$.
(From *Moths Ind.* vol. ii.)

thorax white with blackish patches; legs black, the tarsi ringed with white; abdomen brownish. Fore wing silvery white, irrorated and suffused with fuscous brown; small tufts of scales at middle and end of cell; a large blackish patch at base of costa; the antemedial

line black, ill-defined, sinuous, oblique below the cell and with a large quadrate blackish patch beyond it from costa to median nervure, with an obscure line from its outer extremity to inner margin; the postmedial line oblique, blackish, dentate; an obscure irregularly sinuous subterminal line with a diffused blackish patch before and beyond its middle; cilia chequered white and black. Hind wing whitish, suffused with fuscous towards apex; a discoidal lunule.

Hab. SIKHIM, Moore Coll. type, (*Lidderdale*). *Exp.* 36 millim.

Larva. Pale buff, with indistinct dark dorsal line and tufted with short yellow hair mixed with a few long black hairs; a tuft of long black hair behind the head bearing the cast head-skins; lateral tubercles with tufts of hair, those on terminal segment long. Food-plant, *Castanopsis indica*; 'mimicks' a Coccid living on the same leaves, which is buff with a tuft of black waxy filaments on anal segments.

Cocoon boat-shaped, fixed to a twig and covered with pieces of bark, the tuft of long hair and exuviae of head fixed to its apex. (*Dudgeon*.)

70. *Nola melanota*, n. sp. (Plate XIX. fig. 3.)

Head and thorax white; palpi blackish at sides; meso- and meta-thorax with black patches; abdomen tinged with fuscous. Fore wing greyish white irrorated with some silvery scales, the medial area tinged with brown; small tufts of black scales near base and at middle and upper angle of cell; large blackish patches on costa

near base and at middle and on inner margin at the postmedial line; a minutely dentate antemedial black line angled inwards on vein 1; the postmedial line punctiform, curved, angled inwards on submedian fold, then with obscure line parallel to its inner edge; an indistinct irregularly sinuous subterminal line with some slight black streaks on the veins at middle; termen suffused with fuscous, with a series of black points; some fuscous spots on cilia. Hind wing white, tinged with fuscous towards termen, especially in female.

Hab. SIKHIM, 7000 ft. (*Pilcher*), 1 ♂, 10 ♀, type; ASSAM, Khâsis, 1 ♀. *Exp.* 22-24 millim.

71. *Nola distributa*.

Lycene distributa, Wlk. Journ. Linn. Soc., Zool. vi. p. 113 (1862); Kirby, Cat. Het. p. 371.

Nola major, Hmps. Ill. Het. B. M. viii. p. 48, pl. 139. f. 13 (1891); Moths Ind. ii. p. 142, & iv. p. 504; Kirby, Cat. Het. p. 376.

Whitish or grey irrorated with fuscous; palpi fuscous at sides; abdomen tinged with fuscous. Fore wing with fuscous patch at base of costa; a fuscous medial patch on costa, with tuft of raised scales at its apex in cell and the obscure oblique sinuous medial line from it to inner margin; an oblique minutely dentate dark postmedial line slightly bent outwards between veins 5 and 3; an irregular subterminal line bent inwards at veins 5 and 2; a terminal series of black points. Hind wing pale suffused with fuscous, especially towards apex.

Hab. S. LEONE (*Clements*), 1 ♂, 1 ♀; MADAGASCAR; CHINA, Shanghai; SIKHIM, 1 ♀; BRUTÂN (*Dudgeon*), 1 ♂, 1 ♀; CALCUTTA, 1 ♀; CANARA (*Wise*), 1 ♂; NILGIRIS (*Hampson*), 2 ♀ type *major*; BURMA, Rangoon, 1 ♂, 1 ♀; BORNEO, Sarawak (*Wallace*), 1 ♀ type; BALI (*Doherty*), 1 ♂; CHRISTMAS I. (*Andrews*), 1 ♀. *Exp.*, ♂ 18-20, ♀ 26-28 millim.

72. *Nola præfica*.

Nola præfica, Saalm. Lep. Madag. i. p. 174, pl. 5. f. 57 (1884); Kirby, Cat. Het. p. 372.

♂. Head and thorax greyish white irrorated with fuscous; palpi blackish at sides; legs blackish, the tarsi ringed with white; abdomen fuscous. Fore wing greyish white irrorated with fuscous and brown; a dark patch on base of costa; small tufts of scales near base and at middle and end of cell; the antemedial line indistinct, obtusely angled on median nervure, with a quadrate blackish patch beyond it on medial part of costa; the postmedial line oblique, reduced to points, slightly excurved between veins 5 and 2, then with line parallel to its inner side; a diffused irregularly sinuous subterminal line with some fuscous suffusion beyond it; a terminal series of black points; cilia whitish with fuscous patches. Hind wing whitish, slightly suffused with fuscous towards termen; a terminal series of points.

♀. Fore wing with the postmedial line continuous; hind wing strongly suffused with fuscous.

Hab. MADAGASCAR, Ankafana, Betsileo (Cowan), 1 ♂, 1 ♀, Nossi-Bé; NATAL, Karkloof (Marshall), 1 ♂; CAPE COLONY, Transkei (Miss Barrett), 1 ♂. *Exp.* 24 millim.

73. *Nola tristicta*, n. sp. (Plate XIX. fig. 4.)

White; palpi black at sides; thorax, legs, and abdomen slightly tinged with fuscous. Fore wing slightly irrorated with fuscous; small tufts of scales near base and in and beyond upper angle of cell; a prominent black streak at base of costa and spot at middle; faint traces of an antemedial line; the postmedial line reduced to points, slightly curved from costa to vein 3, then oblique, and with prominent black spot on inner margin; a very indistinct sinuous subterminal line with short black streaks on the veins; a terminal series of black points. Hind wing slightly tinged with fuscous towards termen, more strongly in female.

Hab. SIKHIM, 7000 ft. (Pilcher), 2 ♂, 3 ♀, type; ASSAM, Khásis, 1 ♂. *Exp.* 18–20 millim.

*74. *Nola solvita*. (Plate XIX. fig. 5.)

Nola solvita, Schaus, J. N. Y. Ent. Soc. iv. p. 153 (1896).

♀. Grey with an ochreous-brown tinge, suffused and irrorated with fuscous; palpi blackish at sides. Fore wing with the tufts of scales near base and at middle and upper angle of cell small; rather indistinct, minutely dentate antemedial, medial, and postmedial dark lines, the 1st angled outwards below costa, the 2nd below costa and on median nervure, the 3rd excurved from below costa to vein 3; a medial brownish shade; an irregularly dentate subterminal line retracted to costa and angled outwards below apex and at middle; termen suffused with fuscous. Hind wing fuscous.

Hab. BRAZIL, Castro Parana, São Paulo, type † ♀ in Coll. Schaus. *Exp.* 20 millim.

75. *Nola microphasma*.

Nola microphasma, Butl. Cist. Ent. iii. p. 117 (1885); Hmps. Moths Ind. iv. p. 503; Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 23; Kirby, Cat. Het. p. 379.

Rhynchopalpus grisealis, Swinh. Trans. Ent. Soc. 1895, p. 25.

Grey. Fore wing with the basal half of costa slightly brownish; small tufts of raised scales near base, in middle, and at upper angle of cell; the antemedial line represented by slight points on median nervure and vein 1; traces of an irregular medial line from lower angle of cell to inner margin; a postmedial series of dark points on the veins slightly excurved from below costa to vein 2; an irregular subterminal line and a terminal series of dark points. Hind wing semihyaline grey, suffused with fuscous towards apex.

Hab. JAPAN (Pryer, Jonas), 1 ♂, 1 ♀ type; BHUTÁN (Dudgeon), 1 ♂; ASSAM, Khásis, type *grisealis*; BORNEO, Sarawak (Wallace), 1 ♂; PULO LAUT (Doherty), 1 ♀. *Exp.* 17 millim.

76. *Nola apera*. (Plate XIX. fig. 6.)

Nola apera, Druce, Biol. Centr.-Am., Het. ii. p. 404 (1897).

Nola involuta, Dyar, J. N. Y. Ent. Soc. vi. p. 42 (1898).

Nola exposita, Dyar, J. N. Y. Ent. Soc. vi. p. 43 (1898).

Grey, slightly tinged with brown: palpi fuscous at sides. Fore wing irrorated with black scales; small tufts of scales near base and at middle and upper angle of cell; costa with some brown points; traces of a curved antemedial line; an oblique postmedial series of dark points; an obscure subterminal line with slight black streaks on the veins; a terminal series of dark points. Hind wing whitish, tinged with fuscous towards termen.

Hab. CALIFORNIA, Los Angeles, type ♂ *involuta* in U.S. Nat. Mus.; ARIZONA, type ♂ *exposita* in U.S. Nat. Mus.; MEXICO, Jalapa (*Trujillo*), 1 ♂, 3 ♀, type; PANAMA, Chiriqui (*Champion*), 1 ♂, Godman-Salvin Coll.; BOLIVIA, Chaco; PERU, Vilcan. *Exp.* 16 millim.

Larva, Dyar, Psyche, vi. p. 110 (*hyemalis*) & p. 248 (*minuscule*).

Egg pale green, spheroidal, much flattened at base, with large contiguous depressions; diameter .33 millim.

Larva, 2nd stage: head, cervical shield, and anal plate black; body thick: warts small, dark brown, bearing three or four short blackish hairs; colour pale whitish with diffused brown subdorsal shade.

3rd and 4th stages: head pale brown with black ocelli.

5th stage: body flattened, with three rows of large shining subdorsal dark brown warts, the 3rd row pale, bearing spreading, long, thin, white and blackish hairs; row 1 subdorsal, two on each segment on somites 1-3; 2 lateral, 3 subventral with some very minute warts, 4 below. Cervical shield large, deep brown, with a whitish dorsal line bisecting it; colour dirty white; a pair of broad deep brown subdorsal bands, somewhat irregular, narrow on somites 2 and 3, and connected by a transverse bar over the dorsum on somite 6 and sometimes also on somite 4: length 5 millim.

6th stage: body wider than high, rounded, hardly tapering; four pairs of abdominal prolegs; wart 1 very large, oblong; 2 and 3 large; 4 very small, subventral. Colour varying much; ground-colour nearly white or tinged with reddish; body shaded with blackish brown: a double dorsal, two waved lateral, and a straight substigmatal line; the shading may be reduced to a few reddish streaks, but on somites 2 and 3 there is always a patch of white bordered by a waved subdorsal black line; warts pale, except rows 1 and 2 on somites 4-11, which are cinnamon-brown or blackish; cervical shield deep brown, bisected; spiracles black; hair of irregular length, longest at extremities, blackish.

Food-plant, *Salix*.

SECT. II (*Nola*). Antennæ of male bipectinate to apex, with fine short branches.

- A. Fore wing suffused with brown to antemedial line..... *cucullatella*.
 B. Fore wing suffused with brown to beyond antemedial line... *fuscibasalis*.

77. *Nola cucullatella*.

Tinea cucullatella, Linn. Syst. Nat. x. i. p. 537 (1758); Faun. Suec. p. 467;
 Esp. Schmett. iii. p. 388, pl. 77. ff. 4-9; Staud. Cat. p. 51; Kirby, Cat.
 Het. p. 372.

Tinea ludwigella, Müll. Faun. Fridr. p. 58 (1764).

Noctua palliola, Den. & Schiff. Syst. Verz. Wien, p. 69 (1776).

Phalæna pygmaria, Fabr. Ent. Syst. iii. 2, p. 163 (1794).

Pyrallis palliolalis, Hübn. Eur. Schmett., Pyr. ff. 13, 149 (1827); Dup. Lép.
 Fr. viii. (2) p. 264, pl. 228. ff. 3, 4.

Nola fuliginalis, Steph. Ill. Brit. Ent., Haust. iv. p. 63 (1834).

Brownish grey; palpi at sides and tegulæ brown; abdomen with blackish dorsal tuft at base. Fore wing with the basal area brown to the strong curved black antemedial line; small tufts of scales at middle and end of cell; a fine black postmedial line strongly ex-curved from below costa to vein 3, then angled inwards and with a pale brownish line parallel to its inner edge,

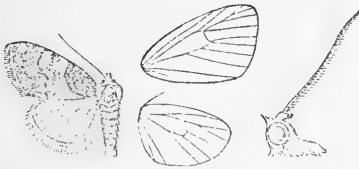


Fig. 9.—*Nola cucullatella*, ♂. $\frac{3}{2}$.

the area beyond it suffused with brown, with an indistinct irregularly dentate subterminal line. Hind wing fuscous brown.

Hab. ENGLAND; FRANCE; GERMANY, Zell. Coll.; SWITZERLAND, Frey Coll.; SPAIN; ITALY; DALMATIA. *Exp.* 24 millim.

Larva, Meyr. Lep. Brit. p. 33; Barrett, Brit. Lep. ii. p. 83, pl. 65. f. 1.

Pale grey, sometimes brown at sides; hairs grey; tubercles reddish; dorsal line pale, dark-edged, traversing several dark grey patches; the 2nd and 3rd thoracic somites with paired prominent dorsal humps. Food-plant: blackthorn, hawthorn, apple; 8-5.

Cocoon boat-shaped.

78. *Nola fuscibasalis*. (Plate XIX. fig. 7.)

Pisara fuscibasalis, Hmps. Moths Ind. iv. p. 505 (1896).

Head and thorax pale brown; palpi at sides, tegulæ, and meta-thorax blackish; abdomen greyish. Fore wing with the basal half brown, with pale patch at base of inner margin; small tufts of fuscous scales near base and at middle and end of cell; a strongly curved black antemedial line; the terminal half fuscous, with a fine dentate postmedial line slightly ex-curved at middle on a whitish ground; an indistinct irregularly sinuous subterminal line. Hind wing fuscous.

Hab. CEYLON, Puttalam, Hambantota (*Pole*), type; BURMA, Thayet-myo (*Watson*), 1 ♀. *Exp.* 14 millim.

SECT. III. Antennæ of male ciliated.

- A. Fore wing of male with the cell very short, the lower angle produced and the discocellulars approximated to veins 3, 4, 5 for some distance.
- a. Fore wing with broad medial brown band *laticincta*.
- b. Fore wing without medial brown band.
- a¹. Fore wing with the basal half of costal area suffused with fuscous, the tufts of scales forming large fans ... *achromata*.
- b¹. Fore wing with the basal half of costa not suffused with fuscous, the tufts of scales small..... *tornotis*.

79. *Nola laticincta*.

Nola laticincta, Hmps. Moths Ind. iv. p. 502 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 28.

- ♂. Greyish white slightly suffused with fuscous; palpi brownish at sides; abdomen with some brown on dorsum and blackish dorsal tufts on first four segments. Fore wing with blackish tufts of scales at middle and upper angle of cell; a broad brown band from before middle to end of cell, with some patches of blackish scales on it below the cell, its outer edge



Fig. 10.—*Nola laticincta*, ♂. ♀.

strongly excurved between veins 5 and 3; the postmedial and subterminal lines very ill-defined, reduced to patches of brown scales and strongly retracted to costa; some fuscous striæ on termen. Hind wing white, suffused with fuscous towards termen; a discoidal spot.

Hab. BHUTÂN (Dudgeon), 1 ♂ type. *Exp.* 14 millim.

80. *Nola achromata*, n. sp. (Plate XIX. fig. 8.)

♂. White; palpi at sides, antennæ, and segments of abdomen tinged with fuscous, the 1st segment with large dorsal tuft. Fore wing with large fans of scales at middle and two beyond upper angle of cell; slight fuscous irroration, especially on basal half of costal area; an indistinct oblique fuscous antemedial line; the postmedial line strongly excurved between veins 6 and 2, indistinct and minutely waved; an indistinct dentate subterminal line bent inwards to costa and angled inwards at vein 2; some fuscous on termen. Hind wing slightly tinged with fuscous towards termen.

Hab. SOLOMONS, Alu (Woodford), 1 ♂ type. *Exp.* 20 millim.

*81. *Nola tornotis*. (Plate XIX. fig. 9.)

Sorocostia tornotis, Meyr. P. Linn. Soc. N. S. W. (2) ii. p. 923 (1887); Kirby, Cat. Het. p. 377.

♂. White; head and thorax slightly irrorated with fuscous; palpi brownish at sides. Fore wing slightly irrorated with fuscous,

more strongly on terminal area; the tufts of scales near base and at middle and upper angle of cell small; a short subbasal line from costa; a fine sinuous antemedial line bent inwards to inner margin; the postmedial line punctiform, black, very much bent outwards from below costa to vein 5, then retracted to below angle of cell; an irregular subterminal line with diffused brown on its inner side, and acutely angled below costa; a terminal series of dark points; cilia with series of brown spots. Hind wing semihyaline whitish, tinged with fuscous towards termen.

Hab. QUEENSLAND, Duaringa, type ♂ in Coll. Meyrick. *Exp.* 16 millim.

B. (*Dimona*). Fore wing with the cell normal.

a. Fore wing without black fascia from base in submedian fold.

a¹. Fore wing with the ante- and postmedial lines not connected by a black streak in submedian fold.

a². Fore wing without black streak on subcostal nervure.

a³. Fore wing with the area from antemedial line to termen suffused with black and grey. *niphostera* (♀).

b³. Fore wing with well-defined fuscous band on inner side of postmedial line *semograptæ*.

c³. Fore wing with brownish band between the two postmedial lines *epicentra*.

d³. Fore wing without band on inner side of postmedial line.

a⁴. Fore wing with oblique fuscous bar from costa before postmedial line *nigrisparsa*.

b⁴. Fore wing without oblique bar from costa before postmedial line.

a⁵. Fore wing with the antemedial line strongly angled inwards below the cell.

a⁶. Fore wing with prominent black patch at base of costa *melanogramma*.

b⁶. Fore wing without black patch at base of costa *scabrælis*.

b⁵. Fore wing with the antemedial line not angled inwards below the cell.

a⁶. Fore wing with the antemedial line erect below cell.

a⁷. Fore wing with the postmedial line straight *bistriga* (♀).

b⁷. Fore wing with the postmedial line excurved below costa *grisealis*.

b⁶. Fore wing with the antemedial line oblique below cell.

a⁷. Fore wing with the ground-colour almost white *melanchysis*.

b⁷. Fore wing with the ground-colour fuscous grey.

a⁸. Fore wing with well-defined postmedial line.

a⁹. Fore wing with the postmedial line dentate below vein 5 and angled inwards on vein 1 *ænictis*.

b⁸. Fore wing with the postmedial line incurved below vein 5 ... *eycota*.

- b^3 . Fore wing with the postmedial line reduced to a series of minute streaks *monozona* (♀).
 b^2 . Fore wing with black streak on subcostal nervure *aulacota*.
 b^1 . Fore wing with the ante- and postmedial lines connected by a black streak in submedian fold.
 a^2 . Fore wing with prominent subbasal black spot . *implens* (♀).
 b^2 . Fore wing without subbasal black spot.
 a^3 . Fore wing with the antemedial line angled outwards in submedian interspace *porrigens*.
 b^3 . Fore wing with the antemedial line not angled outwards in submedian interspace *anisogona*.
 b . Fore wing with a black fascia from base in submedian fold *paroxynta*.

*82. *Nola niphostena*. (Plate XIX. fig. 19.)

Sorocostia niphostena, Lower, Tr. R. Soc. S. Austral. xx. p. 153 (1896).

♀. Head and thorax white slightly irrorated with fuscous; palpi blackish at sides; abdomen tinged with brown. Fore wing with the basal area white irrorated with fuscous, most thickly on costal half and almost pure white towards the 1st line, which is almost medial, oblique, and slightly angled on subcostal and median nervures, the whole area beyond it dark grey suffused with fuscous; the tuft of scales on discocellulars black with an obscure line just beyond it, curved to lower angle of cell and angled outwards on veins 2 and 1; the postmedial line defined by white on outer side, oblique from costa just before apex to submedian interspace, where it is angled inwards, some black suffusion with dentate outer edge beyond it, and a curved white spur given off at vein 2 to tornus. Hind wing pale fuscous.

Hab. S. AUSTRALIA, Port Victoria, type † ♀ in Coll. Lower. *Exp.* 22 millim.

*83. *Nola semograptæ*. (Plate XIX. fig. 10.)

Sorocostia semograptæ, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 720 (1886)
 Kirby, Cat. Het. p. 376.

♀. Head, thorax, and abdomen white tinged with fuscous. Fore wing white, with small tufts of blackish scales near base and at middle and upper angle of cell; some blackish marks on costal area near base; a blackish antemedial line angled outwards in cell and inwards on vein 1; the postmedial line strongly retracted to costa, bent outwards between veins 5 and 3, angled outwards on submedian fold, and with a broad band of fuscous suffusion on its inner side with sinuous inner edge; the subterminal line irregularly sinuous, with broad diffused black and brownish band on its inner side from costa to vein 2; some olive-brown on termen and a series of black spots; cilia black. Hind wing pale fuscous.

Hab. VICTORIA, Gisborne (*Anderson*), 1 ♀, Raynor Coll. 1 ♀; TASMANIA, Deloraine, type † ♀ in Coll. Meyrick. *Exp.* 20 millim.

*84. *Nola epicentra*. (Plate XIX. fig. 11.)

Sorocostia epicentra, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 724 (1886); Kirby, Cat. Het. p. 377.

Head and thorax white irrorated with black; abdomen greyish; fore tarsi ringed with black. Fore wing white irrorated with ochreous grey and with a few black scales; the tufts of scales pale ochreous tipped with white; a fine black subbasal line not reaching inner margin; the antemedial line fine, black, defined by white on outer side, curved and angled inwards on median nervure; a fine oblique striga from costa to the tuft at upper angle of cell; the postmedial line double, fine, black, and minutely waved, oblique from costa to vein 5, where it is angled, then retracted, the spaces between the lines filled in with pale brownish; an irregular subterminal series of black points with a prominent spot above vein 6; a prominent terminal series of points. Hind wing greyish white.

Hab. N. S. WALES, Sydney. *Exp.* 25 millim. Figured from a drawing in Coll. Meyrick.

85. *Nola nigrisparsa*.

Nola nigrisparsa, Hmps. Moths Ind. iv. p. 504 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 21.

♀. Head and thorax white irrorated with black scales; palpi blackish at sides; abdomen brownish white. Fore wing white irrorated with black scales; large tufts of scales near base and at middle and upper angle of cell; a black streak on base of subcostal nervure; a rather indistinct strongly curved antemedial black line; the postmedial line with blackish patch on inner side from costa to vein 5, waved, strongly excurved from below costa to vein 3, then angled outwards on vein 1 and with a line parallel to its inner side; an irregularly sinuous subterminal line, retracted to costa. Hind wing pale fuscous.

Hab. ΒΥΤΑΝ (*Dudgeon*), 1 ♀ type. *Exp.* 20 millim.

86. *Nola melanogramma*, n. sp. (Plate XIX. fig. 12.)

♂. Head white; palpi black at sides; thorax and abdomen grey-white largely mixed with black; tegulae with a black band. Fore wing grey-white, with small tufts of scales near base and at middle and end of cell; a triangular black patch at base of costa; the antemedial line black, with a black patch on it in cell and dentate on median nervure and vein 1; the postmedial line double, dentate, bent outwards from below costa, where it is acutely angled, to vein 5, then oblique; an irregularly sinuous subterminal line sharply angled below costa; a terminal series of black points; cilia strongly irrorated with black. Hind wing pale fuscous.

Hab. N. S. WALES (*Raynor*), 1 ♂ type. *Exp.* 22 millim.

87. *Nola scabralis*. (Plate XIX. fig. 13.)

Tribunta scabralis, Wlk. xxxiv. 1507 (1865); Kirby, Cat. Het. p. 376.

Sorocostia parallacta, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 723; Kirby, Cat. Het. p. 377.

Sorocostia cerraunias, Turner, Trans. R. Soc. S. Ausir. 1899, p. 15.

♂. Grey irrorated and tinged with brown; palpi brownish at sides. Fore wing with small tufts of scales near base and at middle and upper angle of cell, the two latter blackish; a blackish striga near base of costa; the antemedial line fine, dark, angled outwards in cell and above inner margin and incurved below the cell; the postmedial line dentate, bent outwards from below costa to vein 3, then very oblique; a diffused waved subterminal line; termen suffused with brown. Hind wing whitish tinged with brown.

Hab. N. S. WALES, Sydney (*Damel*), 1 ♂ type, Parramatta, Raynor Coll. 2 ♂, Mt. Kosciusko, type + *parallacta* in Coll. Meyrick. *Exp.* 16 millim. Type + *cerraunias* in Coll. Turner.

*88. *Nola bistriga*. (Plate XIX. fig. 17.)

Stenola bistriga, Möschl. Abh. Senck. Ges. xvi. p. 119 (1890); Kirby, Cat. Het. p. 378.

♀. Creamy white, palpi rufous at sides. Fore wing slightly irrorated with rufous scales; ante- and postmedial straight rufous lines, the first almost erect, the latter somewhat oblique, and neither reaching costa; an indistinct subterminal line excurved at middle. Hind wing slightly tinged with brown on apical area.

Hab. Porto Rico, type + ♀ in Coll. Staudinger. *Exp.* 20 millim.

89. *Nola grisalis*.

Nola grisalis, Hmps. Ill. Het. B. M. ix. p. 88, pl. 158. f. 9 (1893); Moths Ind. ii. p. 140.

Grey; palpi black at sides; pectus and legs blackish. Fore wing slightly irrorated with black scales; small tufts of blackish scales near base and at middle and upper angle of cell; the basal half of costa blackish; a subbasal black point on costa; the antemedial line angled in cell, often reduced to points on costa, median nervure, and vein 1; the postmedial line usually reduced to a series of black points, strongly angled outwards below costa, then excurved to vein 3. An indistinct irregularly sinuous subterminal line sharply angled outwards below costa; some dark points on termen. Hind wing pale fuscous.

Hab. CEYLON, Pundaloya (*Green*), 1 ♂, 1 ♀ type, Puttalam (*Pole*). *Exp.* 12–16 millim.

90. *Nola melanchysis*, n. sp. (Plate XIX. fig. 16.)

♂. Head and tegulae white, finely irrorated with black scales; thorax and abdomen tinged with brown. Fore wing white, tinged with brown and finely irrorated with black scales; small tufts of

scales near base and at middle and upper angle of cell; the antemedial line indistinct, acutely angled in cell, then oblique; the postmedial line indistinct, oblique, reduced to black points, and slightly excurved between veins 6 and 3; an indistinct diffused dentate subterminal line retracted to costa. Hind wing white, tinged with brown towards termen.

Hab. TONGA (*Matheu*), 1 ♂ type. *Exp.* 16 millim.

***91. *Nola ænictis*. (Plate XIX. fig. 15.)**

Sorocostia ænictis, Meyr. P. Linn. Soc. N. S. W. (2) ii. p. 923 (1888); Kirby, Cat. Het. p. 377.

♂. Head and thorax greyish fuscous; abdomen whitish. Fore wing greyish fuscous, irrorated with darker scales; the tufts of scales near base and at middle of cell large and blackish, the tuft at upper angle small and grey; an oblique blackish striga from costa to 1st tuft; the antemedial line blackish, obtusely angled in cell, then oblique; the postmedial line fine, black, acutely angled below costa, angled on vein 5, then oblique, dentate, and angled inwards on vein 1; an indistinct, irregularly sinuous, subterminal line. Hind wing pale fuscous.

Hab. W. AUSTRALIA, Geraldton, type † ♂ in Coll. Meyrick. *Exp.* 20 millim.

***92. *Nola cycota*. (Plate XIX. fig. 20.)**

Sorocostia cycota, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 723 (1886); Kirby, Cat. Het. p. 377.

♂. White, strongly irrorated and suffused with fuscous brown. Fore wing with the tufts of scales near base and at upper angle of cell small, the tuft at middle of cell larger and blackish; the antemedial dark line indistinct, obtusely angled in cell, then oblique; the postmedial line fine, dark, angled below costa and at vein 5, then strongly incurved; the subterminal line slightly defined by whitish on outer side, obscurely angled outwards below costa and inwards above vein 1. Hind wing pale fuscous.

Hab. N. S. WALES, Sydney, type † ♂ in Coll. Meyrick. *Exp.* 20 millim.

***93. *Nola monozona*. (Plate XIX. fig. 18.)**

Sorocostia monozona, Lower, P. Linn. Soc. N. S. W. xxii. p. 11 (1897).

♀. Grey irrorated with fuscous; palpi blackish at sides; abdomen tinged with brown. Fore wing with the costa blackish towards base; the antemedial line almost obsolete, strongly angled outwards in submedian interspace and with an oblique black bar on its outer side from costa to median nervure; an obscure postmedial series of short black streaks on the veins, acutely angled on vein 5, then oblique; traces of a subterminal line angled at vein 6. Hind wing tinged with brown.

Hab. S. AUSTRALIA, Blackwood, type † ♀ in Coll. Lower. *Exp.* 22 millim.

94. *Nola aulacota*. (Plate XIX. fig. 21.)

Sorocostia aulacota, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 722 (1886); Kirby, Cat. Het. p. 377.

♂. Head, thorax, and abdomen white; palpi brownish at sides; shoulders brownish. Fore wing white suffused with pale brown; the tufts of scales near base and at middle and upper angle of cell rather small; a black streak on subcostal nervure; the antemedial line very acutely angled in cell, then rather indistinct; the postmedial line very oblique and strongly dentate; an irregularly sinuous subterminal line; the terminal area strongly suffused with brown except towards apex, and the veins streaked with black; some brown points on termen. Hind wing white, more or less suffused with brown towards termen.

Hab. VICTORIA, Melbourne, (*Lucas*) 1 ♂, (*Raynor*) 1 ♂; TASMANIA, Deloraine, type† ♂ in Coll. Meyrick. *Eap.* 22 millim.

*95. *Nola implens*. (Plate XIX. fig. 22.)

Manoba implens, Wlk. Journ. Linn. Soc., Zool. vii. p. 62 (1863).

♀. White slightly irrorated with brown; palpi with the basal half black at sides. Fore wing with prominent subbasal black spot in cell with some raised scales on it; the 1st line almost medial, slightly sinuous, with a small triangular spot on its outer edge at costa, with a fuscous streak in submedian fold and suffusion on inner area connecting it with the postmedial line, which is oblique from costa to submedian fold, where it is angled; three subterminal points and a short line above inner margin; cilia brownish. Hind wing tinged with brown.

! *Hab.* BORNEO, Sarawak (*Wallace*), 1 ♀ type† in Mus. Oxon. *Eap.* 20 millim.

96. *Nola porrigens*.

Dimona porrigens, Wlk. xv. 1650 (1858).

Sorocostia arachneis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 724 (1886); Kirby, Cat. Het. p. 377.

♂. Head and thorax grey, thickly irrorated with fuscous; abdomen brownish white. Fore wing grey, thickly irrorated with fuscous; small tufts of scales near base and at middle and upper angle of cell; an oblique subbasal black striga on costa; the antemedial line fine, black, acutely angled outwards in cell, inwards on median nervure; and very acutely outwards in submedian fold; the postmedial line



Fig. 11.—*Nola porrigens*, ♂. †.

dentate, very strongly excurved and reduced to points from below costa to vein 2, then acutely angled inwards to the antemedial line

on submedian fold; traces of a diffused sinuous subterminal line with a series of black points on it; a terminal series of black points. Hind wing whitish, tinged with brown.

Hab. N. S. WALES, Sydney, 1 ♂ type. *Exp.* 18 millim. Type † *arachneis* in Coll. Meyrick.

*97. *Nola anisogona*. (Plate XIX. fig. 14.)

Sorocostia anisogona, Lower, Tr. R. Soc. S. Austral. xvii. p. 149 (1893).¹

♂. Head and thorax clothed with grey and dark brown scales, with some patches of red-brown; abdomen pale brown, with dark brown dorsal tufts on 1st two segments. Fore wing clothed with grey, dark brown, and red-brown scales; subbasal black points on costa and on the tuft of scales in cell; the antemedial black line waved, curved, and oblique below the cell; the tufts of scales at middle and end of cell black at base; the postmedial black line strongly excurved from costa to vein 4, then incurved and emitting a streak in submedian interspace almost to the antemedial line; an irregularly sinuous subterminal line, interrupted at places, angled at veins 6 and 4, then incurved; a terminal series of points. Hind wing brown.

Hab. S. AUSTRALIA, Blackwood, type † ♂ in Coll. Lower. *Exp.* 28 millim.

98. *Nola paroxynta*. (Plate XIX. fig. 23.)

Sorocostia paroxynta, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 719 (1886); Kirby, Cat. Het. p. 376.

Greyish suffused with brown; palpi blackish at sides; thorax marked with black; abdomen with two dorsal black tufts at base. Fore wing with small tufts of blackish scales near base and at middle and upper angle of cell; a prominent black streak in submedian fold from base to postmedial line with a fine white streak above it; a black striga from costa near base; the antemedial line black, acutely angled outwards in cell and below vein 1 and inwards on vein 1; the postmedial line acutely angled outwards below costa and on vein 5, above which it is often reduced to points, then oblique, acutely angled inwards in submedian fold, and with a subcostal whitish fascia from it to apex; an ill-defined oblique subterminal line retracted to costa, and accompanied by black streaks on the veins. Hind wing brownish fuscous.

Ab. 1. Ground-colour greyish fuscous.—Melbourne.

Hab. N. S. WALES, Sydney, 2 ♂, 1 ♀; VICTORIA, Melbourne (*Anderson*), 3 ♂, 3 ♀. *Exp.* 18 millim. Type † in Coll. Meyrick.

Genus **PÆCILONOLA**, nov.

Type, *P. plagiola*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint moderately scaled, the 3rd minute; maxillary palpi minute; frons with tuft of scales; antennæ of male ciliated; basal joint with tuft of scales; tibiæ with the spurs long. Fore wing short and broad; vein 3 from before angle of cell; 5 from

well above angle; 6 from below upper angle; 7, 8 stalked from 10, 9 absent; 11 oblique. Hind wing with vein 3 from angle of cell; 4 absent; 5 from near middle of discocellulars; 6, 7 shortly stalked; 8 from middle of cell.

- A. Fore wing with the basal half white *seminigra*.
 B. Fore wing brown, with white patches at base of inner area and before the postmedial line *plagiola*.

99. *Pæcilonola seminigra*.

Pisara seminigra, Hmps. Moths Ind. iv. p. 505 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 30.

♀. Head, thorax, and abdomen silvery white; palpi and sides of frontal tuft blackish; abdomen tinged with fuscous towards extremity. Fore wing silvery white, with antemedial oblique triangular blackish patch and tuft of scales from costa; tufts of leaden scales at end of cell and on the postmedial and subterminal lines; the postmedial line angled below costa, with a quadrate patch before it on costa and the area beyond it brown suffused with black; a whitish spot on costa beyond the postmedial line; the subterminal line sinuous; cilia black, irrorated finely with white. Hind wing white, tinged with fuscous except towards base.

Hab. BHUTÁN (*Dudgeon*), 1 ♀ type. *Exp.* 18 millim.

100. *Pæcilonola plagiola*.

Selea plagiola, Hmps. J. Bomb. N. H. Soc. xi. p. 441, pl. A. f. 2 (1898).

♂. Head and thorax white; palpi and antennæ brown; abdomen white tinged with brown. Fore wing reddish brown, suffused and irrorated with dark brown; small tufts of scales near base and at middle and upper angle of cell, and a scale-tooth on inner margin beyond middle; a white patch on basal half of inner margin connected by a white line with base of vein 2; sub-basal, antemedial, and medial black striae on costa; the postmedial line white, acutely angled outwards at



Fig. 12.—*Pæcilonola plagiola*, ♂. ?.

vein 5, then sinuous, a large patch of white on its inner side from costa to vein 2, and a blackish patch beyond its middle; an irregularly sinuous subterminal whitish line acutely angled below costa. Hind wing white, tinged with fuscous towards termen.

Hab. Ceylon, Puttalam (*Pole*), 1 ♂ type. *Exp.* 18 millim.

Genus *MELANOGRAPHIA*, nov.

Type, *M. flexilineata*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint moderately scaled, the 3rd moderate; antennæ of male ciliated; tibiae with the spurs long. Fore wing with vein 5 from well above angle of cell; 6 from below

upper angle; 7, 8, and 10 stalked, 9 absent, 7 from 8 after 10; 11 oblique. Hind wing with veins 3, 4 stalked; 5 from near middle of discocellulars; 6, 7 from upper angle; 8 from middle of cell.

SECT. I. Frons and basal joint of antennæ with tufts of scales; fore wing with vein 3 from angle of cell, approximated to 4 for some distance; a large fovea at upper angle of cell on underside, with a clubbed corneous process in it from veins 7, 8, which are much curved round fovea at base.

101. *Melanographia tympanistis*, n. sp.

Melanographia tympanistis, Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 22.

♂. Head and thorax white; palpi and lower part of frons deep black; legs black, grey, and white; abdomen fuscous, with segmental



Fig. 13.—*Melanographia tympanistis*, ♂. ♀.

white lines. Fore wing white from costa near base to tornus, the apical half brown irrorated with black, with tufts of leaden scales on its inner edge; some tufts of black and leaden scales on costal area above end of cell; a small triangular blackish patch on inner margin beyond middle; some dark marks forming traces of an irregular postmedial line; a subterminal line retracted to costa, angled at veins 6 and 4 and obsolete towards inner margin. Hind wing fuscous, the inner area whitish.

Hab. SIKHIM, 1800 ft. (*Dudgeon*), 1 ♂ type. *Exp.* 20 millim.

SECT. II. Frons smooth; antennæ without tuft on basal joint; fore wing with vein 3 from near angle of cell.

102. *Melanographia flexilineata*.

Nola flexilineata, Hmps. J. Bomb. N. H. Soc. xi. p. 440 (1898).

Greyish white irrorated with fuscous; palpi and lower part of frons black. Fore wing with small tufts of scales near base, at middle and upper and lower



Fig. 14.

Melanographia flexilineata, ♂. ♀.

angles of cell; some brownish suffusion on subbasal area; the antemedial line black, angled outwards in and below cell and on vein 1, with traces of a line parallel to its inner side; traces of a line from lower angle of cell to inner margin; the postmedial line fine, deep,

black, very oblique from costa to vein 4, then nearly erect; the terminal area suffused with fuscous, with indistinct irregularly

dentate subterminal whitish line and series of white points on termen. Hind wing pale fuscous.

Hab. CHINA, Chekiang (*Pryer*), 1 ♀, Foochau; ASSAM, Khâsis, 1 ♂ type. *Exp.* 24 millim.

Genus **DIALITHOPTERA**, nov.

Type, *D. gemmata*.

Proboscis fully developed; palpi oblique, extending about the length of head, the 2nd joint roughly scaled above and below, the 3rd minute; maxillary palpi minute; frons with tuft of scales; antennæ in both sexes bipectinate, the apical fourth serrate, the basal joint with tuft of scales; tibiæ with the spurs long. Fore wing with vein 3 from close to angle of cell; 5 from just above angle; 6 from below upper angle; 7, 8, and 10 stalked, 9 absent, male with a fovea covered on upperside by a scale-flap above base of vein 10; 11 oblique. Hind wing with veins 3, 4 stalked from angle of cell; 5 from near middle of discocellulars; 6, 7 from upper angle; 8 from middle of cell.

103. *Dialithoptera gemmata*.

Pisara gemmata, Hmps. Moths Ind. iv. p. 506 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 29.

Head white; palpi at sides, lower part of frons, and branches of

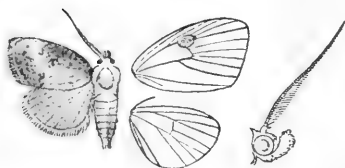


Fig. 15.—*Dialithoptera gemmata*, ♂. 2.

antennæ blackish brown; thorax yellowish white; pectus and legs fuscous; abdomen white tinged with fuscous. Fore wing yellowish white, the costal half suffused with brown and fuscous to middle; silvery blue raised scales on basal area on costa and below cell, on medial part of costal area and on the tufts of scales at upper and lower angles of cell; the postmedial line formed by silvery blue tufts of scales, obtusely angled below costa and slightly angled inwards above vein 2; the terminal area suffused with brown and fuscous except towards costa; the subterminal line irregularly sinuous, retracted to costa and with tufts of silvery blue scales on it. Hind wing fuscous.

Hab. SIKHIM, 1800–3000 ft. (*Dudgeon, Pilcher*), 2 ♂, 1 ♀ type. *Exp.* 20 millim.

Genus **NIGETIA**.

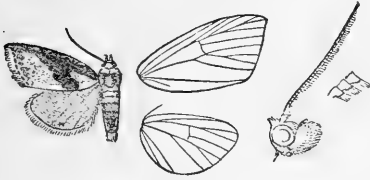
Type.

Nigetia, Wlk. xxxiv. 1505 (1865) *formosalis*.

Proboscis well developed; palpi upturned, the 2nd joint broadly and quadrately scaled in front, the 3rd short, naked; maxillary palpi minute; frons with a tuft of scales; antennæ of male minutely serrate and fasciculate, the basal joint with tuft of scales; tibiæ with the spurs long. Fore wing elongate triangular, the apex somewhat produced and acute; slight tufts of scales at middle and end of cell; veins 3, 4 stalked; 5 from angle of cell or stalked with 3, 4; 6 from well below upper angle; 7, 8, 9, 10 stalked; 11 oblique. Hind wing with veins 3, 4 strongly stalked from angle of cell; 5 from middle of discocellulars; 6, 7 stalked; 8 from middle of cell.

104. *Nigetia formosalis*.*Nigetia formosalis*, Wlk. xxxiv. 1506 (1865).*Nola melanopa*, Zell. Verh. zool.-bot. Ges. Wien, xxii. p. 458, pl. 2. f. 2 (1872); Kirby, Cat. Het. p. 379.

Head black, the vertex white; thorax and first two segments of abdomen white, the rest of abdomen brownish irrorated with black and with black dorsal tufts on two medial segments; pectus and ventral surface of abdomen blackish. Fore wing white slightly tinged with ochreous; a broad irregular black costal fascia with oblique

Fig. 16.—*Nigetia formosalis*, ♂. $\frac{3}{2}$.

white striæ towards apex; a broad oblique black medial band with waved edges; a leaden grey band just inside termen, with some brownish suffusion on its inner edge; a series of small black terminal spots increasing in size towards apex. Hind wing fuscous, with pale sinuous line towards tornus.

Hab. U.S.A., type, type *melanopa* Zell. Coll.; Buffalo, N. Carolina, Texas, Grote Coll. *Exp.* 18–24 millim.

Genus RÆSELIA.

Type.

<i>Ræselia</i> , Hübn. Verz. p. 397 (1827)	<i>togatulalis</i> .
<i>Sarbena</i> , Wlk. Journ. Linn. Soc., Zool. vi. p. 137 (1862) ...	<i>lignifera</i> .
<i>Uraba</i> , Wlk. xxviii. 448 (1863)	<i>lugens</i> .
<i>Evonima</i> , Wlk. xxxii. 505 (1865)	<i>aperta</i> .
<i>Cæsa</i> , Wlk. xxxv. 1728 (1866)	<i>lugens</i> .
<i>Toxoloma</i> , Feld. Reis. Nov. p. 9 (1874), non descr.	<i>lugens</i> .
<i>Mimerastria</i> , Butl. A. M. N. H. (5) vii. p. 236 (1881)	<i>mandschuriana</i> .
<i>Callinola</i> , Butl. Ill. Het. vii. p. 33 (1889)	<i>scripta</i> .
<i>Proneca</i> , Swinh. Trans. Ent. Soc. 1890, p. 193 .. .	<i>folia</i> .
<i>Cyphotopsyche</i> , Hmps. Trans. Ent. Soc. 1895, p. 297	<i>ustipennis</i> .
<i>Meganola</i> , Dyar, J. N. Y. Ent. Soc. vi. p. 42 (1898)	<i>minuscula</i> .

Proboscis fully developed or weak; palpi porrect, downcurved, sometimes obliquely upturned, extending about the length of head and roughly scaled; maxillary palpi minute; frons with slight tuft of scales; antennæ with tuft of scales on basal joint; tibiæ with the spurs long. Fore wing triangular; vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10 stalked*; 11 oblique. Hind wing with vein 3 from angle of cell; 4 absent or stalked with 3; 5 from near middle of discocellulars or above angle of cell; 6, 7 stalked; 8 from middle of cell.

* In *micans* vein 10 arises from the cell, then strongly anastomoses with 7, 8, 9.

SECT. I. Antennæ of male bipectinate, the apical fourth simple.

- A. (*Sarbena*). Tegulæ held projecting forward so as to form a hood over the head.
- a. Fore wing with oblique dark fascia from termen below apex, widening to middle of inner margin *folia*.
 - b. Fore wing with longitudinal dark streaks *lignifera*.

105. *Ræselia folia*. (Plate XIX. fig. 24.)

Pronota folia, Swinh. Trans. Ent. Soc. 1890, p. 194; Kirby, Cat. Het. p. 555.

♂. Head and thorax ochreous mixed with brown; abdomen whitish tinged with fuscous. Fore wing ochreous irrorated with red-brown; a dark brown fascia on costal area; a slightly curved dark line from termen below apex to middle of inner margin, with a diffused dark brown fascia on its inner side widening towards inner margin, on which it extends almost to base; a subterminal line obsolescent and retracted towards costa, angled at vein 5, then oblique and broad. Hind wing whitish; veins 3, 4 stalked.

♀. Hind wing fuscous.

Hab. CEYLON, Colombo (*Mackwood*), 1 ♂; BURMA, Thyetmyo, 1 ♀ type. *Exp.*, ♂ 22, ♀ 24 millim.

106. *Ræselia lignifera*.

Sarbena lignifera, Wlk. Journ. Linn. Soc., Zool. vi. p. 137 (1862).

Cyphotopsyche ustipennis, Hmps. Trans. Ent. Soc. 1895, p. 297; Moths Ind. iv. p. 506.

Head, thorax, and abdomen grey mixed with blackish brown;



Fig. 17.—*Ræselia lignifera*, ♂. }
(From Moths Ind. vol. iv.)

palpi blackish; tegulæ with two black bands. Fore wing brown; the tufts of scales rather small; a blackish fascia on costa; the postmedial line fine, black, very strongly excurved from below costa to vein 3, then very acutely angled inwards in submedian fold,

with a streak from its angle to inner margin near base, then acutely angled outwards above vein 1; a blackish patch on outer margin below apex; a streak in discal fold from beyond postmedial line to cell and on vein 5 from termen to postmedial line. Hind wing fuscous, paler towards inner margin in male; veins 4, 5 stalked.

Hab. BHUTÁN (*Dudgeon*), 1 ♂, type *ustipennis*; BOMBAY PRES., Mhow (*Forsayth*), 1 ♀; CEYLON, Hambantota, 1 ♀ (*Pole*); BORNEO, Sarawak (*Wallace*), 1 ♂ type + in Mus. Oxon. *Exp.* 22–26 millim.

Larva. Early stages: creamy buff, with dorsal, subdorsal, and sublateral series of small warts bearing tufts of long buff hair; four pairs of prolegs, the 6th somite without prolegs; the cast skins of the head are attached to a long tuft of hair projecting forward from 1st somite, the number of moults being known by the number

of skins present. Full-grown larva snow-white, covered with a down-like detachable substance with slight creamy tinge below; the hairs white, except five or six long black hairs on thoracic somites; head buff marked with brown striae; a dorsal black mark on 1st somite, partly hidden by the tuft which after the last moult bears five head-skins. The larva progresses with a jerky motion. It forms a boat-shaped cocoon by biting off pieces of rotten wood and bark and interlacing them with the long hairs which are left projecting; before fastening down the flap of cocoon it rubs its head against it for a long time, and with much difficulty detaches the tuft and head-skins and attaches them to the side of cocoon. (*Dulgeon.*)

B. (*Ræselia*). Tegulæ normal.

- a. Fore wing with a prominent irregularly dentate line before the postmedial line.
 - a¹. Fore wing with the postmedial line double, angled inwards on vein 2.
 - a². Fore wing with the double antemedial line retracted almost to base of inner margin, no black spots on subterminal line..... *bifliferata*.
 - b². Fore wing with the double antemedial line not retracted towards inner margin, the subterminal line with black spots below apex and above tornus *scripta*.
 - b¹. Fore wing with the postmedial line single.
 - a². Fore wing with the postmedial line angled inwards on vein 2 *strigirena*.
 - b². Fore wing with the postmedial line almost straight. *triangularis*.
- b. Fore wing without prominent dentate line before postmedial line.
 - a¹. Fore wing with the ground-colour silvery white.
 - a². Fore wing with prominent black spot below middle of cell *argyria* (♀).
 - b². Fore wing without prominent black spot below middle of cell.
 - a³. Fore wing with the terminal area tinged with rufous, the subterminal line connected with the termen by streaks below apex and at middle *nitida* (♀).
 - b³. Fore wing with no rufous tinge on terminal area, the subterminal line not connected with termen.
 - a⁴. Hind wing fuscous..... *argentescens* (♀).
 - b⁴. Hind wing white *micans*.
- b¹. Fore wing with the ground-colour not silvery.
 - a². Fore wing with large blue-grey and white discal patch *aperta* (♀).
 - b². Fore wing without grey and white discal patch.
 - a³. Fore wing with the postmedial line almost evenly curved, hardly retracted below vein 3.
 - a⁴. Fore wing with the medial area suffused with cupreous..... *metallopa*.
 - b⁴. Fore wing with well-defined black medial band..... *trocha*.
 - c⁴. Fore wing with the medial area white or pale fawn-colour.
 - a⁵. Fore wing without triangular dark patch on middle of costa *albula*.

- b*¹. Fore wing with triangular dark patch on middle of costa *leucostola* (♀).
*b*². Fore wing with the postmedial line strongly excurved at middle, retracted or oblique below vein 3.
*a*⁴. Fore wing with the apical half bright rufous. *semirufa*.
*b*⁴. Fore wing suffused with rufous.
*a*⁵. Fore wing with the subterminal line represented by an oblique streak across apical area *rufescens*.
*b*¹. Fore wing with irregular subterminal line. *causta*.
*c*⁴. Fore wing with triangular rufous patch from costa to lower angle of cell.
*a*⁵. Fore wing with the postmedial line double. *hermana*.
*b*⁵. Fore wing with the postmedial line single. *cuneifera*.
*d*⁴. Fore wing without rufous patch on middle of costa.
*a*⁵. Fore wing with the basal area yellowish, the terminal area rufous except at costa. *flavibasis*.
*b*⁵. Fore wing with the basal area not yellowish, the terminal area not rufous.
*a*⁶. Fore wing without regularly curved medial black line.
*a*⁷. Fore wing with the whole medial area suffused with black.
*a*⁸. Fore wing with the postmedial line dentate *denticulata*.
*b*⁸. Fore wing with the postmedial line not dentate *mediozona*.
*b*⁷. Fore wing with the medial area not suffused with black.
*a*⁸. Fore wing with the postmedial line oblique from costa to vein 4, where it is strongly angled.
*a*⁹. Fore wing with black patch on middle of costa *maculata*.
*b*⁹. Fore wing without black patch on middle of costa.
*a*¹⁰. Fore wing with the ground-colour white *perangulata*.
*b*¹⁰. Fore wing fuscous, with white patch on basal half of inner area *leucospila*.
*b*⁸. Fore wing with the postmedial line excurved from just below costa to vein 3.
*a*⁹. Fore wing with the ante- and post-medial lines not connected by a black streak in submedian fold.
*a*¹⁰. Fore wing without fuscous fascia from cell to termen.
*a*¹¹. Fore wing without blackish patch on middle of costa.
*a*¹². Fore wing with the antemedial line strongly angled in cell.
*a*¹³. Fore wing with the antemedial line angled inwards on vein 1. *strigula*.
*b*¹³. Fore wing with the antemedial line not angled inwards on vein 1 *pygmæa*.
*b*¹². Fore wing with the antemedial line not angled in cell.

- a^{13} . Fore wing with the antemedial line not angled on vein 1.
 a^{14} . Fore wing with the postmedial line dentate *dentata*.
 b^{14} . Fore wing with the postmedial line not dentate.
 a^{15} . Fore wing with the medial area strongly suffused with fuscous *indistincta*.
 b^{15} . Fore wing with the medial area not suffused with fuscous. *antennata*.
 b^{13} . Fore wing with the antemedial line angled on vein 1..
 a^{14} . Fore wing without greenish-black patches on costa near base and towards apex.
 a^{15} . Fore wing without fuscous suffusion on inner side of postmedial line *bryophiloides*.
 b^{15} . Fore wing with fuscous suffusion on inner side of postmedial line *divisa*.
 b^{14} . Fore wing with greenish-black patches on costa near base and towards apex *arana* (♀).
 b^{11} . Fore wing with triangular blackish patch on middle of costa.
 a^{12} . Fore wing with the postmedial line double.
 a^{13} . Fore wing with the dark patch at base of costa conjoined to the medial patch *costalis*.
 b^{13} . Fore wing with the basal costal patch separate from the medial patch.
 a^{14} . Fore wing with prominent black spot at middle of cell *patina*.
 b^{14} . Fore wing without prominent black spot at middle of cell.
 a^{15} . Fore wing with the ground-colour greyish.
 a^{16} . Fore wing with the black patch at base of costa prominent *rodea*.
 b^{16} . Fore wing with the black patch at base of costa indistinct *minuscule*.
 b^{15} . Fore wing with the ground-colour fuscous black *bryophilalis*.
 b^{12} . Fore wing with the postmedial line single.
 a^{13} . Fore wing with brown patch on costa towards apex *incana* (♀).
 b^{13} . Fore wing without patch on costa towards apex.
 a^{14} . Fore wing pale grey; hind wing white *metaleuca*.
 b^{14} . Fore wing dark grey-brown; hind wing fuscous *gigantula*.
 b^{10} . Fore wing with fuscous fascia from cell to termen *ascripta*.

- b*⁶. Fore wing with the ante- and post-medial lines connected by a black streak in submedian fold..... *fumosa*.
*b*⁶. Fore wing with regularly curved medial black line.
*a*⁷. Fore wing with prominent antemedial line.
*a*⁷. Fore wing with the postmedial line excurved between veins 5 and 3 *togatularis*.
*b*⁸. Fore wing with the postmedial line oblique from costa to vein 3, where it is angled *lugens*.
*b*⁷. Fore wing with the antemedial line indistinct *medioscripta*.

107. *Ræselia bifliferata*.

Lobophora bifliferata, Wlk. xxvi. 1710 (1862).

Nola terulosa, Druce, Biol. Centr.-Am., Het. i. p. 141, pl. 13. f. 21 (1885); Kirby, Cat. Het. p. 371.

Head and tegulæ ferruginous, vertex of head whitish; thorax and abdomen greyish white, the latter tinged with ochreous. Fore wing silvery greyish white, the costal area suffused with ferruginous to beyond middle; rather large tufts of scales near base, at middle, and upper angle of cell; a fine black streak below basal half of median nervure; the antemedial line arising on median nervure at middle of cell, very oblique and angled inwards on vein 1; the postmedial line fine, black, double, strongly excurved from costa to vein 2, where it is angled inwards, then with an indistinct line parallel to its inner edge; an indistinct interrupted sinuous subterminal line, strongly retracted to costa and with black streaks on the veins from it to postmedial line; a fine brown terminal line and some points on the cilia. Hind wing whitish, tinged with fuscous towards termen; vein 4 stalked with 3.

Hab. COSTA RICA, Vera Cruz (*Schumann*), 1 ♀, Irazu (*Rogers*), 1 ♂; PANAMA, Chiriqui (*Champion*), 1 ♂ type *terulosa*, Godman-Salvin Coll.; BRAZIL, Petropolis (*Doer*), São Paulo (*Jones*), 3 ♂, 3 ♀, Rio Janeiro, 2 ♂. *Exp.*, ♂ 20, ♀ 24 millim. Type in Mus. Oxon.

108. *Ræselia scripta*.

Ræselia scripta, Moore, P. Z. S. 1888, p. 393; Butl. Ill. Het. B. M. vii. p. 34, pl. 122. f. 13; Hmps. Moths Ind. ii. p. 146; Kirby, Cat. Het. p. 376.

Ræselia inscripta, Moore, Lep. Atk. p. 287 (1888); Kirby, Cat. Het. p. 375.

Grey with a brassy tinge; palpi blackish at side; thorax suffused with black; abdomen with blackish dorsal tuft at base. Fore wing with small tufts of scales near base and at middle and upper angle of cell; a fine curved black antemedial line; some fuscous suffusion on medial area below the cell; a black point on middle of costa; a fine black medial line strongly excurved and dentate



Fig. 18.—*Ræselia scripta*, ♂. 1.
(From Moths Ind. vol. ii.)

costa; a fine black medial line strongly excurved and dentate

between veins 6 and 2, and strongly excurved above vein 1; a minutely waved double postmedial line; an interrupted dentate subterminal black line with black patches on it below apex and above tornus; a fine black terminal line. Hind wing fuscous; vein 4 usually absent.

Hab. N.W. HIMALAYAS, Murree, Dalhousie (*Harford*), Kangra (*Hocking*), type; SIKHIM, type *inscripta*, Moore Coll. *Exp.*, ♂ 22-24, ♀ 30 millim.

109. *Ræselia strigivena*. (Plate XIX. fig. 25.)

Selea strigivena, Hmps. Moths Ind. ii. p. 147 (1894).

♀. Grey suffused with pale brown; palpi blackish at sides. Fore wing with small tufts of scales near base and at middle and upper angle of cell; a fine curved black antemedial line; the postmedial line curved from costa to vein 3, acutely angled inwards on vein 2, then excurved again, a fine line on its inner side obliquely curved from costa to vein 3, then very highly dentate and incurved; an irregularly dentate subterminal line retracted to costa and with short black streaks on the veins: a fine terminal black line. Hind wing brown; vein 4 stalked with 3.

♂. Fore wing with fuscous triangular patch on middle of costa, the black streaks on veins of terminal area strongly developed.

Hab. SIKHIM (*Dudgeon*), 1 ♀; type † ♂ in Coll. Elwes. *Exp.* 22 millim.

110. *Ræselia triangularis*.

Nota triangularis, Leech, P. Z. S. 1888, p. 608, pl. 31. f. 12.

Grey; head and thorax largely mixed with black; abdomen tinged with fuscous. Fore wing irrorated with fuscous; large tufts of scales near base and at middle and upper angle of cell; a blackish patch at base of costa; a large medial blackish triangular patch on costa with its apex on vein 2; the postmedial line straight, except that it is very slightly angled at vein 4, a fine line on its inner side, sinuous from costa to vein 3, then highly dentate; a subterminal line retracted to costa, angled at veins 6 and 3, and bent outwards to tornus; a terminal series of black points. Hind wing fuscous; vein 4 stalked with 3.

Hab. JAPAN, Satsuma (*Leech*), type † in Coll. Leech; SIKHIM (*Dudgeon*), 1 ♀; ASSAM, Khâsis, 1 ♂. *Exp.* 22 millim.

111. *Ræselia argyria*. (Plate XIX. fig. 26.)

Pisara argyria, Hmps. Moths Ind. ii. p. 145 (1894).

♀. Silvery white; palpi at sides and antennæ blackish; abdomen tinged with fuscous and brown. Fore wing slightly irrorated with fuscous; rather large tufts of black scales near end and at upper angle of cell, and a small tuft of white scales near base; a black spot at base of costa; a large subquadrate brown and black patch at middle of costa, and a small black spot below base of vein 2 at

extremity of the indistinct oblique antemedial line; three fuscous spots on costa towards apex; a large reddish-brown patch on terminal area below vein 5, with the postmedial line on its inner edge and traversed by the diffused black subterminal line, both obsolescent and retracted towards costa, the latter angled at veins 5 and 4 and bent inwards below vein 3; cilia with some blackish spots. Hind wing pale fuscous; veins 3, 4 stalked.

Hab. SIKHIM (*Knyvett*), type † in Coll. Elwes; ASSAM, Khâsis, 1 ♀. *Exp.* 26 millim.

112. *Ræselia nitida*. (Plate XIX. fig. 27.)

Silea nitida, Hmps. Moths Ind. ii. p. 147 (1894).

♀. Head and thorax silvery white; palpi at sides, antennæ, and edges of tegulæ blackish; pectus, legs, and abdomen blackish. Fore wing silvery white, the medial and terminal areas tinged with cupreous; a triangular black patch at base of costa; the tufts of scales small, the 1st and 2nd black; a fine slightly sinuous black antemedial line angled inwards on vein 1; the medial area with blackish patch on costa beyond the antemedial line, some black suffusion below the cell and traces of a medial line; the postmedial line slightly sinuous, strongly recurved at vein 3 to below angle of cell; a blackish patch on costa towards apex; an irregularly dentate black subterminal line retracted to costa and angled outwards to termen above veins 6 and 3; a terminal black line; cilia chequered white and black. Hind wing fuscous, with slight discoidal line; veins 3, 4 stalked.

Hab. N.W. HIMALAYAS, Simla, Dalhousie (*Harford*); Dharmasāla (*Hocking*); MANIPUR, Māo (*Doherty*), type † in Coll. Elwes. *Exp.* 30 millim.

Larva pale yellow, the 1st and terminal somites orange; paired black dorsal spots on 3rd somite and single spots on 6th, 10th, and 11th somites; a tuft of reddish hair from behind the head, to which are attached the various cast skins of the head, the 1st moult at apex and the others at intervals. Food-plant, *Ilex*, the larva feeding on the edges of the leaves from the underside, with the tuft of hair and cast head-skins only projecting beyond the edge. *Cocoon* boat-shaped, spun on a twig and covered with scales of bark, with the tuft of hair and exuviae of head attached to it. (*Harford*.)

113. *Ræselia argentescens*.

Pisara argentescens, Hmps. Trans. Ent. Soc. 1895, p. 296; Moths Ind. iv. p. 505; Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 32.

♀. Head and thorax silvery grey mixed with bronze; abdomen brownish. Fore wing metallic silvery grey irrorated with fuscous; the tufts of scales small; a diffused blackish patch at base of costa and another from middle of costa to lower angle of cell; no trace of antemedial line; the postmedial line indistinct, excurved from

below costa to vein 3; an indistinct dentate subterminal line retracted to costa. Hind wing dark fuscous; cilia whitish; veins 3, 4 stalked.

Hab. SIKHIM (*Dudgeon*), 1 ♀ type. *Exp.* 28 millim.

114. *Ræselia micans*, n. sp. (Plate XIX. fig. 28.)

♂. Head, thorax, and abdomen white irrorated with black scales; palpi blackish at sides. Fore wing silvery white irrorated with black scales; a wedge-shaped black patch at base of costa, and a somewhat quadrate medial patch including the tuft of scales at upper angle of cell; the antemedial and postmedial lines indistinct, the former waved, the latter excurved from below costa to vein 3, then incurved to below end of cell, and with traces of a line on its inner side, or more prominently black; an indistinct irregularly dentate subterminal line bent inwards to costa; some dark spots on terminal part of costa and a terminal series of points. Hind wing white, the costal area slightly tinged with fuscous.

Fore wing with vein 10 arising from the cell, then strongly anastomosing with 7, 8, 9.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♂, 1 ♀ type. *Exp.* 18–24 millim.

115. *Ræselia aperta*. (Plate XIX. fig. 29.)

Evonima aperta, Wlk. xxxii. 506 (1865); Kirby, Cat. Het. p. 928.

♀. Reddish brown; tegulae edged with grey; patagia grey except at base. Fore wing with the tufts of scales large; a white patch at base of inner area, with a black streak above its extremity below median nervure and bounded by the white antemedial line, which is strongly angled on median nervure; a curved white medial line from costa to origin of vein 2, the white postmedial line arising from it below costa, strongly excurved to vein 5 then sinuous, some black points on its inner side; between the upper part of the two lines is a white patch, with a larger blue-grey patch below it extending into lower end of cell and to just beyond the postmedial line, traversed by white streaks on vein 2 and in submedian fold; a pale trisinate subterminal line with a deeper brown patch between its middle sinus and the postmedial line; the veins of terminal area streaked with black. Hind wing pale brownish, tinged with fuscous towards termen.

Hab. JAVA (*Horsfield*), 2 ♀, type. *Exp.* 20 millim.

116. *Ræselia metallopa*. (Plate XIX. fig. 30.)

Nolu metallopa, Meyr. Pr. Linn. Soc. N. S. W. (2) i. p. 726 (1886); Kirby, Cat. Het. p. 374.

Head white slightly tinged with brown; palpi fuscous; thorax fuscous, with some white and blackish scales; abdomen greyish. Fore wing greyish white irrorated with fuscous; small tufts of scales near base and at middle of cell; a brownish triangular patch

on base of costa irrorated with brassy scales; the ante- and post-medial lines fine, black, the former excurved in and below cell, the latter oblique from costa to vein 5, where it is slightly bent inwards, then curved, the area between them with broad brownish band irrorated with brassy and black scales and traversed by a black line with tufts of scales on it; an indistinct sinuous subterminal line retracted to costa; a terminal series of black points. Hind wing dark fuscous; veins 3, 4 stalked.

Hab. QUEENSLAND, Brisbane, type † ♂ in Coll. Meyrick; N. S. WALES, Parramatta, 1 ♀ (*Raynor*); VICTORIA. *Exp.*, ♂ 18, ♀ 22 millim.

*117. *Ræselia trocha*. (Plate XIX. fig. 31.)

Noctua trocha, Dognin, Ann. Soc. Ent. Belge, xli. p. 25 (1897).

♀. Head and thorax pure white; palpi blackish at sides; pectus, legs, and abdomen fuscous. Fore wing pure white; a black-brown patch at base of costa irrorated with black and silvery scales; a black-brown medial band irrorated with silvery scales, expanding towards costa, its outer edge angled on median nervure, its inner on vein 1; a triangular blackish patch with white point on it on costa before apex; traces of a sinuous subterminal line; fuscous triangular marks on termen at veins 5 and 2; cilia fuscous. Hind wing pale fuscous, with indistinct dark discoidal spot.

Hab. ECUADOR, Loja, type † ♀ in Coll. Dognin. *Exp.* 24 millim.

118. *Ræselia albula*.

Noctua albula, Den. & Schiff. Syst. Verz. Wien, p. 69 (1776); Hübn. Eur. Schmett., Pyr. f. 14; Dup. Léop. Fr. viii. p. 273, pl. 228. f. 2; Herr.-Schäff. Schmett. Eur. ii. p. 166, f. 140; Staud. Cat. p. 52; Kirby, Cat. Het. p. 374.

♂. White; abdomen banded with brown. Fore wing with large tufts of scales near base and at middle and upper angle of cell, the last at extremity of a rufous costal spot; slight rufous marks on base of costa; an indistinct curved antemedial line; the post-medial line angled below costa and retracted slightly at vein 3, where it is sometimes joined to the costal spot by a diffused rufous shade; some rufous points on costa towards apex; a very indistinct trisinate subterminal line; termen rufous except towards apex and tornus; cilia rufous. Hind wing white, tinged with brown towards apex.

♀ with the diffused rufous medial band of fore wing broad and traversed by a dentate blackish medial line retracted to costa; a rufous band sometimes present on inner side of subterminal line and a terminal series of black points.

Hab. ENGLAND, Kent; FRANCE; GERMANY, Zell. Coll.; HUNGARY; SARDINIA; ITALY; DALMATIA; BITHYNIA; PONTUS; JAPAN, Nagasaki. *Exp.* 24 millim.

Larva, Meyr. Brit. Lep. p. 34; Barrett, Lep. Brit. ii. p. 193, pl. 65. f. 5.

Whitish, pale pink, or orange; hairs whitish, a few much longer

and dark brown; dorsal line double, grey; subdorsal black, interrupted. Food-plant, *Rubus*; 8-6.

119. *Ræselia leucostola*, n. sp. (Plate XIX. fig. 32.)

Nola melicerta, Druce, Biol. Centr.-Am., Het. i. p. 140 (part) (1885).

♀. Head and thorax pure white; palpi at base, antennæ, and abdomen tinged with brown. Fore wing pure white, with a small blackish patch at base of costa and a large quadrate medial patch on which are placed tufts of leaden scales near end and at upper angle of cell; traces of an almost regularly curved postmedial line; the subterminal line trisinate, interrupted, and with blackish patches at costa and middle; cilia brown. Hind wing tinged with fuscous, especially towards termen; a discoidal point; vein 4 strongly stalked with 3.

Hab. COSTA RICA, Irazu, 6000 ft. (*Rogers*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 26 millim.

*120. *Ræselia semirufa*. (Plate XIX. fig. 33.)

Pisara semirufa, Hmps. Moths Ind. ii. p. 146 (1894).

♀. Head and tegulæ white; palpi, antennæ, and tegulæ behind rufous; thorax and abdomen rufous. Fore wing with the basal area rufous, the medial area white with a few dark scales, its outer edge obliquely curved from costa before middle, the inner margin beyond middle, the rest of wing deep rufous; a minutely dentate antemedial line, oblique towards costa and angled inwards on vein 1; the postmedial line blackish, minutely dentate, retracted to costa and with some white beyond it, very strongly angled inwards below vein 3, then with broad fuscous band on its inner side; a subterminal line retracted to costa and angled inwards below veins 6 and 3; cilia fuscous towards base. Hind wing pale rufous; vein 4 absent.

Hab. SIKHIM (*Knyvett*), type † in Coll. Elwes. *Exp.* 24 millim.

*121. *Ræselia rufescens*. (Plate XIX. fig. 34.)

Raselia rufescens, Dognin, Ann. Soc. Ent. Belge, xliii. p. 134 (1899).

♂. Head white irrorated with black; palpi blackish; tegulæ rufous; thorax and abdomen white; fore and hind legs blackish. Fore wing white, almost entirely suffused with rufous, the basal inner area whiter; the costal area irrorated with black and white scales; the antemedial line hardly traceable, angled in cell, then oblique; a white patch in end of cell; the tufts of scales at middle and upper angles of cell large, a smaller tuft at lower angle; the postmedial line indistinct, angled at vein 4, then oblique; veins 5, 6, 7 streaked with black; the apical area white, defined below by an oblique black streak recurved at lower end; a slightly waved rufous line curved round below apex; a white patch towards tornus; a series of rufous spots on cilia. Hind wing pure white.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 26 millim.

122. *Ræselia causta*, n. sp. (Plate XX. fig. 1.)

♂. Head, thorax, and abdomen pale and dark red-brown; vertex of head white; abdomen dorsally tinged with fuscous on terminal half. Fore wing suffused with rufous to the postmedial line and on termen; a greyish and fuscous streak below basal half of costa; the antemedial line very indistinct, double, and strongly excurved at middle; a medial line incurved to costa and angled inwards to lower angle of cell; the postmedial line double, excurved from costa to vein 2, where it is angled inwards, then approximated to the medial line, the area beyond it white to the irregularly dentate subterminal blue-grey line, which is bent inwards to costa and slightly defined by white on outer side. Hind wing whitish tinged with brown especially on terminal half; traces of a curved postmedial line.

Hab. BOLIVIA, Rio Songo, Chaco (*Garlepp*), 1 ♂ type. *Exp.* 20 millim.

123. *Ræselia hermana*. (Plate XX. fig. 2.)

Nola hermana, Schaus, J. N. Y. Ent. Soc. iv. p. 152 (1896).

Head and tegulæ rufous; thorax grey; abdomen brownish. Fore wing grey, thickly irrorated with fuscous; a large triangular rufous patch on middle of costa, extending down to submedian fold and along costa to base; the tufts of scales near base and at middle and upper angle of cell rather small; the ante- and postmedial lines double, indistinct, the former excurved in and below cell, then oblique to inner margin near base, the latter strongly excurved between veins 5 and 3 and angled on vein 1, and with traces of a dentate line on its inner side; a blackish streak on median nervure; a subterminal series of black streaks on the veins connected by a very indistinct irregularly dentate line. Hind wing whitish, suffused with fuscous towards termen, almost wholly suffused in female; vein 3 absent or from 4 just before termen.

Hab. MEXICO, Jalapa; BRAZIL, São Paulo, type ♀ in Coll. Schaus; Rio Janeiro, 2 ♂. *Exp.*, ♂ 20, ♀ 24 millim.

124. *Ræselia cuneifera*.

Melia cuneifera, Wlk. xxxii. 338 (1865); Swinh. Cat. Het. Mus. Oxon. p. 132, pl. 4. f. 22.

Sela ruficostata, Hmps. Moths Ind. iv. p. 507 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 13.

Grey and strongly irrorated with fuscous; head and tegulæ ferruginous; abdomen tinged with ferruginous. Fore wing with the costal half suffused with ferruginous to beyond middle, expanding as a triangular patch to lower angle of cell; tufts of scales near base and at middle and upper and lower angles of cell; traces of an antemedial line acutely angled in submedian fold; the postmedial line black, angled below costa and on vein 5, then oblique;

the subterminal line strongly dentate and retracted to costa. Hind wing dark fuscous; vein 4 stalked with 3.

Hab. SIKHIM, 1 ♂; BHUTÁN (*Dudgeon*), 1 ♀, type *ruficostata*; BORNEO, Sarawak (*Wallace*), 1 ♂ type † in Mus. Oxon. *Exp.*, ♂ 24, ♀ 32 millim.

125. *Ræselia flavibasis*, n. sp. (Plate XX. fig. 3.)

♂. Head and thorax white, irrorated with a few black scales; palpi at sides and antennæ brown; tegulæ with blackish band; abdomen brownish. Fore wing white, irrorated with black scales and tinged with pale yellow towards base; the tufts of scales small; costa rufous; the antemedial line represented by an oblique striga on costa and a very oblique fine black line from cell to inner margin, with some diffused rufous between it and the very oblique postmedial dentate series of black marks on the veins; the terminal area broadly rufous except at costa and traversed by a sinuous black subterminal line, obsolete towards inner margin. Hind wing brownish; vein 4 stalked with 3. Palpi about twice length of head.

Hab. CEYLON, Colombo (*Mackwood*), 1 ♂ type. *Exp.* 22 millim.

126. *Ræselia denticulata*. (Plate XX. fig. 4.)

Ræselia denticulata, Moore, Lep. Atk. p. 287 (1888); Hmps. Moths Ind. ii. p. 140; Kirby, Cat. Het. p. 375.

♂. Head and tegulæ white; palpi blackish at sides except towards extremity; mesothorax, patagia, and metathorax with black patches; abdomen whitish tinged with fuscous. Fore wing brownish white; a blackish patch at base of costa and a broad medial band irrorated with silvery leaden scales; tufts of black scales near base and at middle and end of cell; minutely dentate oblique antemedial and medial black lines; the postmedial line angled at vein 5, punctiform from costa to vein 3, then dentate, incurved and bounding the medial band; an irregularly sinuous subterminal fuscous line; a terminal series of black points; cilia with fuscous patches. Hind wing brownish white, with discoidal fuscous spot; vein 4 absent.

Hab. SIKHIM (*Atkinson, Pilcher*), 3 ♂, type. *Exp.* 24 millim.

*127. *Ræselia mediozona*. (Plate XX. fig. 5.)

Ræselia mediozona, Dognin, Ann. Soc. Ent. Belge, xliii. p. 133 (1899).

♂. White, irrorated with brown and grey. Fore wing with the costal edge black towards base; a broad medial band suffused with black, its inner edge curved and strongly defined by raised black scales at middle, its outer edge oblique from costa to vein 4, where it is angled, then strongly incurved, three black points on it at costa and a whitish patch in end of cell; a minutely dentate pale brown subterminal line, oblique towards costa and incurved below vein 2 and with an obscure brown band beyond it; the veins towards

termen slightly streaked with black; cilia with brown spots. Hind wing pure white, with very slender terminal brown line.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 28 millim.

*128. *Roeselia maculata*. (Plate XX. fig. 27.)

Nola maculata, Stgr. Rom. Mém. iii. p. 180 (1887); Kirby, Cat. Het. p. 373.

♂. Head, thorax, and abdomen grey-white irrorated with fuscous; tegulæ and mesothorax with fuscous bands; patagia with fuscous streaks; palpi and legs much browner. Fore wing grey-white irrorated with brown, the costal area fuscous at base; a large somewhat triangular blackish patch on middle of costa extending to median nervure; the postmedial line minutely dentate, oblique from costa to vein 5 and incurved below vein 3; an irregularly and minutely dentate subterminal line, oblique towards costa; the termen with diffused fuscous spots. Hind wing fuscous brown, with slight discoidal lunule, more distinct on underside. Underside of fore wing fuscous brown.

Hab. AMUR, type † ♂ in Coll. Staudinger. *Exp.* 30 millim.

129. *Roeselia perangulata*, n. sp. (Plate XX. fig. 6.)

♀. Head and thorax grey-white; palpi blackish at sides; abdomen brownish. Fore wing silvery white, the costal area suffused with fuscous; small tufts of scales near base and at middle and upper angle of cell; the antemedial line sinuous, blackish, obtusely angled below cell; the postmedial line black, very oblique from costa to vein 4, where it is acutely angled, then bent inwards to vein 2 and oblique to inner margin, with an indistinct line parallel to its inner edge; the subterminal line formed by brown patches and short black streaks on the veins, strongly retracted and obsolescent towards costa; some terminal brown marks and short black streaks on the veins. Hind wing whitish tinged with brown; an indistinct discoidal point and fine terminal brown line; vein 4 absent.

♂. Fore wing with the postmedial line somewhat more curved towards costa and less sharply angled.

Hab. BOLIVIA, Chaco; PERU, Vilcanota (*Garlepp*), 1 ♂; BRAZIL, Rio Janeiro, 2 ♀, type. *Exp.* 32 millim.

*130. *Roeselia leucospila*. (Plate XX. fig. 7.)

Uraba leucospila, Turner, Trans. R. Soc. S. Austr. 1899, p. 16.

♂. Head and thorax whitish grey; palpi and tegulæ in front blackish; abdomen fuscous. Fore wing dark fuscous; a large triangular whitish-grey patch on basal half of inner area, bounded by the first line, which is almost medial, oblique, and irregularly dentate; an indistinct oblique medial line with ridges of raised black scales on and beyond it, and a cupreous patch beyond the cell between it and the postmedial line, which is dentate, oblique from costa to vein 4, where it is angled and defined by white on outer

side; traces of an irregular subterminal line. Hind wing dark fuscous.

♀ paler; the thorax and patch on inner area of fore wing whiter.

Hab. QUEENSLAND, Brisbane. Type † ♂ ♀ in Coll. Turner.
Exp., ♂ 18, ♀ 26 millim.

131. *Ræselia strigula*.

Noctua strigula, Den. & Schiff. Syst. Verz. Wien, p. 69 (1776); Esp. Schmett. Suppl. iii. p. 52, pl. 89. ff. 1, 2; Hübn. Schmett. Eur., Pyr. f. 16; Dup. Léop. Fr. viii. (2) p. 267, ff. 4, 5; Herr.-Schäff. Schmett. Eur. ii. p. 163, f. 137; Staud. Cat. p. 51; Kirby, Cat. Het. p. 373.

Pyralis monachalis, Haw. Lep. Brit. p. 386 (1812).

Nola lincolalis, Ev. Faun. Volg. & Ur. p. 474 (1844); Kirby, Cat. Het. p. 373.

Grey tinged with brown; palpi blackish at sides. Fore wing irrorated with blackish scales; the tufts near base and at middle and upper angle of cell rather large; ante- and postmedial dentate black lines, the former incurved above vein 1, the latter strongly bent outwards from below costa to vein 3; a blackish spot on middle of costa; a diffused irregularly dentate subterminal black line with some black streaks on the veins; short black streaks on the veins at termen. Hind wing fuscous; veins 3, 4 strongly stalked.

Hab. ENGLAND; IRELAND; FRANCE; GERMANY, Zell. and Frey Colls.; SWEDEN; LIVONIA; ITALY; DALMATIA; TURKEY; BITHYNIA.
Exp. 20-28 millim.

Larva, Meyr. Brit. Lep. p. 34; Barrett, Lep. Brit. ii. p. 186, pl. 65, f. 2.

Pale ochreous, sometimes pink-tinged; hairs pale brownish or yellowish, some towards extremities very long; dorsal line broad, yellowish, fuscous-edged; subdorsal line fuscous, interrupted; a blackish-grey blotch on somite 6. Food-plant, Oak; 8-6.

Cocoon boat-shaped, formed of silk covered by fragments of the bark of food-plant.

132. *Ræselia pygmæa*, n. sp. (Plate XX. fig. 8.)

Head and thorax grey-white; palpi blackish at sides; abdomen brownish. Fore wing white irrorated with brown; small tufts of scales near base and at middle and upper angle of cell, the two latter leaden fuscous; the antemedial blackish line dentate and angled outwards below cell and inwards on vein 1; a small blackish triangular mark at middle of costa; the postmedial line fine, black, obtusely angled at vein 5, then oblique, an indistinct fine dentate line on its inner side; an ill defined dentate subterminal line with some black points on the veins and strongly retracted to costa; a terminal series of black points. Hind wing fuscous, whitish towards base; vein 4 absent.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♀ type; Castro Paraña, ♂ in Coll. Schaus. *Exp.* 16 millim.

*133. *Ræselia dentata*. (Plate XX. fig. 9.)

Meganola dentata, Dyar, Can. Ent. 1899, p. 64.

♂. Grey irrorated with fuscous. Fore wing with minutely dentate antemedial line somewhat angled on median nervure, oblique towards costa and inner margin; a dark rounded patch in and below middle of cell; the postmedial line strongly dentate, excurved from costa to vein 3, then angled strongly inwards in submedian fold; an obscure irregular subterminal line incurved to costa. Hind wing paler.

Hab. U.S.A., Arizona, Chiricahua Mts. *Esp.* 24 millim. Figured from a drawing from type.

*134. *Ræselia indistincta*. (Plate XX. fig. 10.)

Selea indistincta, Hmps. Moths Ind. ii. p. 147 (1894).

♂. Head, thorax, and abdomen grey-brown mixed with fuscous, vertex of head and base of tegulæ whitish. Fore wing grey-brown; the base of inner area suffused with brown; the area between the ante- and postmedial lines suffused with fuscous brown; the tufts of scales rather large; the antemedial line slightly curved, the postmedial punctiform, excurved between veins 6 and 3, then incurved; the subterminal line irregular, retracted to costa, strongly angled inwards below veins 6 and 2 and with fuscous patches on its inner side at middle and on inner area; a terminal series of fuscous spots. Hind wing fuscous; vein 4 absent.

Hab. ASSAM, Naga Hills (*Doherty*), type † in Coll. Elwes. *Esp.* 20 millim.

135. *Ræselia antennata*. (Plate XX. fig. 11.)

Ræselia antennata, Butl. Trans. Ent. Soc. 1878, p. 57, ♂; Kirby, Cat. Het. p. 376.

Ræselia snelleni, Butl. Trans. Ent. Soc. 1878, p. 58, ♀; Kirby, Cat. Het. p. 374.

White tinged with pale yellowish brown. Fore wing irrorated with fuscous and black scales; small tufts of scales near base and at middle and end of cell; an indistinct curved blackish antemedial line; the postmedial line very oblique from costa to vein 4, where it is strongly angled, then bent inwards to vein 2 and oblique to inner margin with an indistinct dentate line on its inner side; an indistinct irregularly sinuous subterminal line strongly retracted to costa. Hind wing white, tinged with brown towards termen; vein 4 absent in female, stalked with 3 in male.

Hab. AMAZONS, Rio Solimões, Tamandare, 1 ♂ type, Rio Jutahi (*Trail*), 1 ♀ type *snelleni*. *Esp.* 18 millim.

136. *Ræselia bryophiloides*. (Plate XX. fig. 12.)

Nola bryophiloides, Butl. Cist. Ent. iii. p. 10 (1882); Kirby, Cat. Het. p. 371.

Nola dispersa, Saalm. Lep. Madag. p. 176 (1884); Kirby, Cat. Het. p. 372.

Head and thorax grey-white; palpi blackish at sides; abdomen brownish. Fore wing grey-white irrorated with fuscous; small tufts of scales near base and at middle and end of cell; a black point near base of costa; the antemedial line arising from a black point on costa, oblique to below cell, where it is angled, then incurved and angled inwards on vein 1; a medial black point on costa; the postmedial line strongly excurved from below costa to vein 2, on which it is acutely angled inwards, then angled outwards above vein 1; an irregularly sinuous subterminal line retracted to costa; some black points on costa towards apex; a terminal series of black points. Hind wing pale, strongly suffused with fuscous towards termen; vein 4 absent.

Hab. MADAGASCAR, Betsileo (*Cowan*), 1 ♀ type, type† ♂ *respersa* in Mus. Lubeck. *Exp.* 22 millim.

137. *Ræselia divisa*. (Plate XX. fig. 13.)

Nola divisa, Schaus, J. N. Y. Ent. Soc. iv. p. 152 (1896).

Nola natama, Schaus, J. N. Y. Ent. Soc. iv. p. 163 (1896).

♂. Head and thorax white; palpi blackish at sides; abdomen tinged with brown. Fore wing with the basal half whitish, suffused with brown and black on costal area, the outer half grey thickly irrorated with black and with a diffused whitish patch at apex; rather large tufts of scales near base and at middle and upper angle of cell; a fine black antemedial line, sometimes almost obsolete, slightly angled outwards below cell and inwards on vein 1; the postmedial line punctiform, excurved from below costa to vein 3, with some fuscous suffusion and black marks on its inner side; an irregularly sinuous subterminal line, retracted to costa. Hind wing whitish, suffused with fuscous towards termen, or entirely fuscous; vein 4 stalked with 3, often almost to termen.

Ab. 1. *notama*. Fore wing with the terminal area browner, irrorated with black and white.

Ab. 2. Head, thorax, and fore wing uniformly suffused with brown.

Hab. BRAZIL, 2 ♂, Castro Paraña, São Paulo, type† and type† *natama* in Coll. Schaus. *Exp.* 20 millim.

*138. *Ræselia arana*. (Plate XX. fig. 14.)

Nola arana, Schaus, J. N. Y. Ent. Soc. iv. p. 152 (1896).

♀. Pale brown; vertex of head pure white; tegulae and prothorax strongly irrorated with greenish black. Fore wing with diffused patches of greenish-black scales on costa near base and towards apex; tufts of scales near base and at middle and upper angle, the two latter large and yellowish; an indistinct black antemedial line acutely angled below costa, angled inwards on vein 1, and obsolete towards inner margin; the postmedial line double, black, dentate and excurved from costa to vein 6, then represented by slight black points on the veins, angled outwards on vein 1; an

indistinct irregular subterminal line retracted to costa, towards which it is defined by a band of dark green scales, a white patch beyond it at apex; a terminal series of black points. Hind wing slightly tinged with fuscous towards termen.

Hab. BRAZIL, São Paulo, 1 ♀ type† in Coll. Schaus. *Exp.* 24 millim.

139. *Ræselia costalis*.

Nola costalis, Stgr. Rom. Mém. iii. p. 179, pl. 10. f. 3 (1887); Kirby, Cat. Het. p. 373.

Grey, irrorated with black scales; palpi black at sides; tibiæ and tarsi black ringed with white. Fore wing with blackish-brown patch on base of costa conjoined to the medial somewhat triangular patch; the tufts of scales blackish on basal side; an indistinct antemedial line, curved from costa to median nervure, then oblique and angled on vein 1; the postmedial line minutely dentate, curved from costa to vein 3, then bent inwards, and with a similar indistinct line on its inner side; an indistinct irregularly dentate subterminal line, bent inwards to costa; short black streaks on the veins at termen. Hind wing suffused with fuscous.

Hab. AMUR, 1 ♀ cotype. *Exp.* 26 millim. Type† ♂ in Coll. Staudinger.

140. *Ræselia patina*.

Nola patina, Druce, Biol. Centr.-Am., Het. i. p. 140, pl. 13. f. 19, ♀ (1885); Kirby, Cat. Het. p. 374.

Æmene plumatella, Druce, Biol. Centr.-Am., Het. i. p. 141, pl. 13. f. 20, ♂ (1885); Kirby, Cat. Het. p. 368.

Grey with a brownish tinge; palpi blackish at sides. Fore wing irrorated with fuscous; the tufts of scales near base and at middle and upper angle of cell small; a blackish patch on costa near base; the antemedial line indistinct, strongly excurved from below costa to submedian fold; the tuft at middle of cell large and black, the one at upper angle on a triangular blackish patch from costa; the postmedial line punctiform, excurved from below costa to vein 3, then oblique, and with a dentate line on its inner side; an indistinct dentate subterminal line retracted to costa; a terminal series of black points. Hind wing pale brownish fuscous; vein 4 from 3 near termen or absent.

Hab. GUATEMALA, Totonicapam (*Champion*), 1 ♂, type *plumatella*; COSTA RICA, R. Sudio (*Rogers*), 1 ♀ type, Godman-Salvin Coll. *Exp.*, ♂ 30, ♀ 20 millim.

141. *Ræselia rodea*. (Plate XX. fig. 15.)

Nola rodea, Schaus, J. N. Y. Ent. Soc. iv. p. 152 (1896).

Nola garuba, Schaus, J. N. Y. Ent. Soc. iv. p. 152 (1896).

Head and thorax white irrorated with fuscous; palpi blackish at sides; abdomen tinged with fuscous. Fore wing white irrorated with fuscous; tufts of scales near base, towards end, and at upper

angle of cell, the two latter rather large and black; a prominent elongate triangular black patch at base of costa, and a somewhat quadrate patch at middle; the ante- and postmedial lines fine, black, the former dentate, the latter bent outwards from below costa to vein 3, and slightly angled below costa and at vein 5, then with a line parallel to its inner side; an irregular subterminal line retracted to costa and angled below costa and at middle; a terminal series of black points. Hind wing white, suffused with fuscous towards termen, or wholly fuscous.

Ab. 1. *garuba*. Head, thorax, and fore wing whiter with hardly any fuscous irroration.

Hab. BRAZIL, São Paulo, type †, Castro Paraña, 1 ♀, type † *garuba* in Coll. Schaus. *Exp.*, ♂ 18, ♀ 22 millim.

142. *Ræselia minuscula*. (Plate XX. fig. 16.)

Nola minuscula, Zell. Verh. zool.-bot. Ges. Wien, xxii. p. 455 (1872);

Kirby, Cat. Het. p. 371.

Nola fuscula, Grote, Papilio, i. p. 76 (1881).

Nola patina, Druce, Biol. Centr.-Am., Het. i. p. 140 (part).

Nola phylla, Dyar, J. N. Y. Ent. Soc. vi. p. 43 (1898).

Meganola minor, Dyar, Can. Ent. 1899, p. 64.

Meganola conspicua, Dyar, J. N. Y. Ent. Soc. vi. p. 43 (1898).

Grey, tinged with brown and irrorated with black; palpi blackish at sides. Fore wing often suffused with brown and more or less strongly irrorated with fuscous; tufts of brownish scales near base and at middle and upper angle of cell; two black points on base of costa and a slight streak below it; the antemedial black line angled outwards in cell, then oblique; a triangular blackish patch on middle of costa; the postmedial line strongly excurved from below costa to vein 3, and with an obscure line parallel to its inner side; an indistinct irregularly dentate subterminal line with some black points at the veins, strongly retracted to costa; a terminal series of black points. Hind wing pale brownish fuscous; vein 4 absent or on a long stalk with 3.

Ab. 1. *fuscula*=*conspicua*. Usually larger; fore wing with the ground-colour browner.

Hab. U.S.A., Texas, 3 ♂, 3 ♀, Zell. Coll.; Colorado, 2 ♂, 2 ♀, type *fuscula*, Grote Coll.; California; Arizona (*Schwarz*), 1 ♂, cotype *minor*; MEXICO, Jalapa (*Trujillo*), 2 ♀, Godman-Salvin Coll.; PANAMA, Chiriqui. *Exp.* 24-30 millim. Types † *phylla* and *conspicua* in U.S. Nat. Mus.

Subsp. 1. Hind wing white, the apex only tinged with fuscous.

Hab. BOLIVIA, Chaco, 2 ♂.

Larva, Dyar, Can. Ent. 1899, p. 61.

Stage III. Pale yellowish, with a point on somite 7; head .4 millim.

Stage IV. Head pale testaceous, width .8 millim.; body flattened; warts large, in three rows, the 4th concealed; pale greenish, shaded with white and brown; a dorsal brown patch on somite 7; sub-

dorsal region irregularly streaked with brown; hair short and bristly on upper two warts, very long from the lower wart, which is lappet-shaped. Hair pale, the warts pale brownish; a faint dark dorsal line.

Stage V. Head, width 1.2 millim., brownish testaceous; body browner, the mark on somite 7 smaller, and a fainter double one on somite 11; third wart produced, its hair long and thick; the warts above with the short hair black-tipped; body pale yellowish, with a double dorsal line; sides faintly brown-mottled except at extremities; warts whitish, with brown ring at base.

Stage VI. Head 1.8 millim., whitish, mottled with brown on the lobes; jaws black; dorsum broadly pale cream-colour; a dark brown subdorsal stripe, joined by transverse bands on somites 7 and 11; mottled; ventral surface pale; warts papillose; hairs pale, the short ones from upper two warts brownish, those of the third wart very long. Food-plant, Oaks of various species.

Cocoon triangular, of little pieces of bark.

143. *Ræselia bryophilalis*.

Nola bryophilalis, Stgr. Rom. Mém. iii. p. 181, pl. 10. f. 5 (1887); Kirby, Cat. Het. p. 373.

Fuscous black irrorated with grey; abdomen greyer. Fore wing with indistinct fine antemedial line angled outwards on median nervure and inwards on vein 1; the tuft of scales in middle of cell black; a small indistinct triangular black patch on middle of costa, with a whitish discoidal lunule at its lower extremity; the postmedial line double, minutely dentate, excurved from costa to vein 3, then incurved; a punctiform subterminal line bent inwards to costa and angled inwards on veins 5 and 2; a terminal series of points. Hind wing fuscous black.

Hab. AMUR, 1 ♂ cotype. *Exp.* 22 millim. Type† in Coll. Staudinger.

144. *Ræselia incana*. (Plate XX. fig. 17.)

Nola incana, Saalm. Lep. Madag. i. p. 173 (1884); Kirby, Cat. Het. p. 371.

♀. Grey; abdomen brownish. Fore wing slightly irrorated with fuscous; a large triangular brown patch at base of costa; the antemedial line indistinct, strongly curved, arising from a brown spot on costa and obsolete towards inner margin; a triangular brown patch on middle of costa; two small tufts of scales at middle of cell, one below middle, and one at each angle; the postmedial line represented by a strongly curved series of black points on the veins; three somewhat conjoined brown spots on costa towards apex; a trisinate subterminal line; a series of short black streaks on veins at termen; a fine terminal line. Hind wing brown; cilia whitish; underside brownish white, with discoidal spot; a post-

medial line excurved from costa to vein 3, then incurved and obsolete towards inner margin; vein 4 absent, 5 from above angle of cell.

Hab. MADAGASCAR, Betsileo (*Cow.in*), 1 ♀. *Exp.* 30 millim. Type † ♀ in Coll. Staudinger.

145. *Ræselia metaleuca*, n. sp. (Plate XX. fig. 28.)

♂. Head white; antennæ brownish; palpi tinged with black at sides; thorax and abdomen grey tinged with brown. Fore wing grey tinged with brown, the costal area suffused with white; an elongate black patch at base of costa and a small triangular patch on middle; the antemedial line evenly curved; traces of a medial line; the postmedial line punctiform, strongly excurved from below costa to vein 3, then incurved; an irregular subterminal line bent inwards to costa; a slight terminal series of points. Hind wing pure white, with slight discoidal point and traces of postmedial line, the termen tinged with brown.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♂ type. *Exp.* 24 millim.

146. *Ræselia gigantula*. (Plate XX. fig. 29.)

Nola gigantula, Stgr. Hor. Soc. Ent. Ross. xiv. p. 328 (1878); Kirby, Cat. Het. p. 373.

Nola gigas, Butl. A. M. N. H. (5) xiii. p. 274 (1884); Kirby, Cat. Het. p. 373.

Grey, entirely suffused with fuscous brown; palpi blackish at sides; legs black, the tarsi ringed with white. Fore wing irrorated with black scales; a large tuft of black scales at middle of cell, and smaller tufts near base and at upper angle; the antemedial line indistinct, excurved at middle; the postmedial line excurved from below costa to vein 3, angled inwards on vein 2 and outwards on vein 1; a very indistinct dentate subterminal line. Hind wing dark fuscous; underside with discoidal spot; veins 3, 4 stalked.

Hab. AMASIA, 1 ♂; JAPAN, Yezo (*Pryer*), 1 ♀, type *gigas*. *Exp.* 34 millim. Type † in Coll. Staudinger.

*147. *Ræselia ascripta*. (Plate XX. fig. 30.)

Selea ascripta, Hmps. Moths Ind. ii. p. 147 (1894).

♂. Head black and white; palpi black; antennæ brown, blackish towards base; thorax and abdomen grey, tegulae black in front. Fore wing grey, the costa fuscous to middle, where it ends in a large diffused fuscous patch extending to the subterminal line and to a slightly oblique fuscous fascia from lower angle of cell to termen; the tufts of scales rather small; the lines very indistinct, the antemedial line angled in cell, then oblique; the postmedial line angled at vein 5, then oblique; the subterminal line more distinct, irregularly sinuous, retracted to costa and angled inwards at veins 6 and 2; a terminal series of dark points. Hind wing pale

greyish, the apical area suffused with fuscous; vein 4 stalked with 3.

Hab. ASSAM, Nāga Hills (*Doherty*), 1 ♂, type † in Coll. Elwes. *Exp.* 28 millim.

148. *Ræselia fumosa*.

Nola fumosa, Butl. Ill. Het. B. M. iii. p. 9, pl. 43. f. 2 (1879); Kirby, Cat. Het. p. 371.

Nola strigulosa, Stgr. Rom. Mém., Lép. iii. p. 180, pl. 10. f. 4 (1887); Kirby, Cat. Het. p. 373.

Dark fuscous grey. Fore wing with black ante- and postmedial lines connected by a black streak in submedian fold, the former strongly excurved at middle and angled inwards on vein 1, the latter minutely dentate, excurved from below costa to vein 3, then incurved, a similar obscure line on its inner side: the tufts of scales near base and at middle and upper angle of cell small; an irregularly sinuous indistinct subterminal line. Hind wing dark fuscous; veins 3 and 4 strongly stalked, sometimes almost to termen.

Hab. SIBERIA, Amur, 1 ♀; JAPAN (*Jonas*), 2 ♂, 1 ♀ type, Yokohama (*Pryer*), 1 ♂. *Exp.*, ♂ 20, ♀ 26 millim.

149. *Ræselia togatulalis*.

Pyralis togatulalis, Hübn. Eur. Schmett., Pyr. p. 20, f. 130 (1837); Dup. Lép. Fr. viii. (2) p. 271, pl. 228. f. 1; Kirby, Cat. Het. p. 372; Staud. Cat. p. 51.

Grey tinged with brown; head and collar brownish. Fore wing with small tufts of scales near base and at middle and upper and lower angles of cell; the costa brown to middle; a fine black ante-medial line dentate outwards in and below cell and on vein 1 and inwards on median nervure and above vein 1; the area beyond it grey-brown to just beyond the strong curved black medial line; the postmedial line bent outwards between veins 6 and 3, dentate from costa to vein 3, then bent inwards to edge of grey-brown area; an obscure sinuous subterminal line retracted to costa and with some short black streaks on the veins of its medial part; termen and cilia browner. Hind wing whitish tinged with brown, especially in female; veins 3, 4 strongly stalked.

Hab. FRANCE; GERMANY, Zell. and Frey Colls.; HUNGARY; SPAIN; DALMATIA; TURKEY. *Exp.*, ♂ 26, ♀ 30 millim.

Cocoon boat-shaped, brown, formed of silk and portions of the bark of food-plant; the tuft of long hair from behind head of larva with the cast head-skins fixed to apex of cocoon.

150. *Ræselia lugens*.

Uraba lugens, Wlk. xxviii. 449 (1863); Kirby, Cat. Het. p. 373.

Cæsa viduella, Wlk. xxxv. 1729 (1866).

Toxoloma australe, Feld. Reis. Nov. pl. 100. f. 16 (1874).

Selca obscura, Swinh. Cat. Het. Mus. Oxon. p. 133.

Head and thorax grey, largely mixed with black; abdomen

brownish. Fore wing grey, thickly irrorated with black; small tufts of scales near base and at middle and two angles of cell; the antemedial line black, prominent, trisinnuate, and defined by white on inner side; a blackish medial line oblique from costa to lower angle of cell; the postmedial line black, defined by white on outer side, oblique from costa to vein 3, then incurved, and bent outwards again on vein 1; an indistinct dentate subterminal line. Hind wing brown; vein 4 stalked with 3. Proboscis aborted.

Hab. QUEENSLAND, COOKTOWN; VICTORIA, Melbourne, 5 ♂, 1 ♀ (Raynor, Anderson); S. AUSTRALIA, Mt. Lofty; TASMANIA, type *viduella*. *Exp.*, ♂ 26–30, ♀ 34–40 millim. Type † *obscura* in Mus. Oxon.

151. *Ræselia medioscripta*. (Plate XX. fig. 31.)

Ræselia medioscripta, Schaus, J. N. Y. Ent. Soc. vii. p. 217 (1899).

♀. Grey, irrorated with fuscous scales. Fore wing with the tufts of scales small; a black patch at base of costa; faint traces of an antemedial line oblique from cell to inner margin; a prominent curved medial black line, slightly angled inwards on vein 1 and arising from a triangular patch on costa; the postmedial line punctiform, strongly excurved from below costa to vein 3, then incurved; an irregularly sinuous subterminal line retracted to costa. Hind wing pale suffused with fuscous; a fuscous terminal line; vein 4 absent.

Hab. MEXICO, Orizaba, Jalapa, 1 ♀. *Exp.* 22 millim. Type † in Coll. Schaus.

SECT. II. (*Mimerastia*). Antennæ of male ciliated.

- A. Fore wing with the postmedial line very strongly angled outwards below costa *anfracta*.
- B. Fore wing with the postmedial line not angled outwards below costa.
 - a. Fore wing with the postmedial line dentate from costa to vein 3; no black discoidal spot.
 - a¹. Fore wing with brown suffusion on medial area except towards costa..... *mandschuriana*.
 - b¹. Fore wing without brown suffusion on medial area *longiventris*.
 - b. Fore wing with the postmedial line not dentate; a prominent black discoidal spot *discisignata*.

*152. *Ræselia anfracta*. (Plate XX. fig. 20.)

Nola anfracta, H. Edw. Pap. i. p. 12 (1881); Kirby, Cat. Het. p. 372.

♂. Head, thorax, and abdomen white slightly tinged with brown. Fore wing with the ground-colour white suffused with pale olive-brown, leaving some white defining the ante- and post-medial lines and on termen; the antemedial brown line angled outwards below costa, then sinuous; an oblique blackish discoidal striga; the postmedial line arising from costa just beyond middle, very strongly angled outwards below costa, then minutely dentate,

and angled inwards at vein 2; the termen white with rather irregular inner edge; a terminal series of dark points. Hind wing white, very slightly tinged with brown; a slight discoidal point and terminal series.

Hab. CALIFORNIA, Yosemite Valley. *Exp.* 20 millim. This species is unknown to me; figured from a drawing from type sent by Prof. Dyar.

153. *Ræselia mandschuriana*.

Erastria mandschuriana, Oberth. *Ét. Ent.* v. p. 83, pl. 2. f. 9 (1881); Kirby, *Cat. Het.* p. 371.

Head and thorax white; palpi and base of frons black; legs black ringed with white; abdomen fuscous banded with white.



Fig. 19.—*Ræselia mandschuriana*, ♂. $\frac{3}{2}$.

Fore wing blackish, irrorated with silvery scales to the postmedial line on costa, to the antemedial line on inner margin; a whitish patch at base of inner margin; large tufts of scales near base and at middle and upper angle of cell; the antemedial line blackish, angled below

median nervure, with some ferruginous suffusion beyond it from cell to inner margin; an indistinct medial waved line; the postmedial line dentate from costa to vein 3, bent outwards at vein 5, angled inwards on vein 2 and outwards on vein 1; a trisinate subterminal line with patches of fuscous on inner side; termen ferruginous brown; cilia fuscous. Hind wing and underside fuscous; vein 4 absent.

Hab. SIBERIA, Askold I.; JAPAN, Tokio (*Fenton*), 1 ♂, Hakodaté (*Andrews, Pryer*), 1 ♂, 1 ♀. *Exp.* 24 millim.

154. *Ræselia longiventris*. (Plate XX. fig. 32.)

Nola longiventris, Pouj. *Bull. Soc. Ent. Fr.* (6) vi. p. cli (1886); Kirby, *Cat. Het.* p. 375.

♂. Grey-white, slightly irrorated with fuscous; palpi black at sides; legs mostly black. Fore wing with pale olive-greenish patches on costa at base and middle, and some greenish irroration on inner medial area; a series of black points on costa except towards base; the antemedial line indistinct, angled outwards just below the cell and inwards on vein 1; the postmedial line grey, minutely dentate, oblique from costa to vein 5, then obliquely bent inwards to below end of cell; the subterminal line oblique from costa to vein 5, rather prominently black defined by greenish on inner side, then indistinct, grey, and angled inwards; a blackish

terminal line. Hind wing tinged with fuscous, especially towards apex.

Hab. TIBET, Moupin; ASSAM, Khâsis, 1 ♂. *Exp.* 28 millim.

155. *Ræselia discisignata*. (Plate XX. fig. 33.)

Pisara discisignata, Hmps. Moths Ind. iv. p. 504 (1896).

♂. Head, tegulæ, and abdomen brownish white; palpi blackish; thorax grey-white. Fore wing grey-white, with very small tufts of scales near base and at middle and end of cell; the basal half of costal area pale brownish, with blackish mark at base; the ante- and postmedial lines erect, sinuous, black, with the ground-colour between them brown, traversed by an obscure waved blackish medial line, the postmedial line excurved round a very prominent black reniform stigma; the terminal area suffused with brown and fuscous, with an obscure irregularly sinuous subterminal line. Hind wing pale fuscous.

Hab. CEYLON, Hambantota, Puttalam (*Pole*), 4 ♂, type. *Exp.* 14 millim.

Genus ZIA.

<i>Zia</i> , Wlk. xxvii. 109 (1863), <i>nec</i> Koch, Crust. (1834), non descr....	Type.
<i>Aquila</i> , Wlk. xxvii. 200 (1863)	<i>tactalis</i> .
	<i>tactalis</i> .

Proboscis well developed; palpi porrect, the 2nd joint roughly scaled above and below; maxillary palpi minute; frons with tuft of scales; antennæ of male ciliated, fasciculate, the basal joint without tuft of scales; tibiæ with the spurs long. Fore wing with vein 3 from before angle of cell; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 stalked; 5 from just above angle of cell or near middle of discocellulars; 6, 7 from upper angle; 8 from middle of cell.

SECT. I. Palpi projecting about twice the length of head; fore wing elongate, the costa arched at base, the apex produced.

156. *Zia tactalis*.

Zia tactalis, Wlk. xxvii. 110 (1863).

Aquila horridella, Wlk. xxvii. 200 (1863).

Head, thorax, and abdomen grey slightly tinged with brown; palpi brown at sides; outer edge of tegulæ brown; metathorax with large tuft of brown scales; abdomen with dorsal tuft of brown scales on first segment. Fore wing grey, suffused with brown in parts, especially on basal area above the submedian fold and in cell; a blackish streak in cell and basal half of submedian fold, with a diffused white fascia below the latter, with a slight black streak below its extremity; the tufts of scales dark; a tuft in submedian fold near origin of vein 2, the indistinct antemedial line running obliquely to it; a white mark on discocellulars and streaks on bases of veins 4, 5; the postmedial line arising from middle of costa, very strongly bent outwards below costa, then punctiform and acutely

angled on vein 1; a wedge-shaped brown mark on costa towards apex; the terminal area with brownish suffusion and fine black



Fig. 20.—*Zia tactalis*, ♀. †.

streaks on the veins; a terminal brown line; cilia grey, with a darker line through them. Hind wing suffused with brown.

Hab. N. S. WALES, Moreton Bay (*Diggles*), 1 ♂ type, Sydney (*Damel*), 1 ♂, 3 ♀, type *horridella*. *Exp.*, ♂ 30, ♀ 34 millim.

SECT. II. Palpi projecting about the length of head; fore wing short and broad.

- | | |
|--|----------------------|
| A. Fore wing with dark triangular patch on costa from base to end of cell | <i>acontioides</i> . |
| B. Fore wing with dark triangular patch from medial part of costa to below angle of cell | <i>laminata</i> . |
| C. Fore wing without dark patches; grey, with a lunulate black spot at upper angle of cell | <i>lunisigna</i> . |

157. *Zia acontioides*.

Pisara acontioides, Wlk. Journ. Linn. Soc., Zool. vi. p. 118 (1862); Swinh. Cat. Het. Mus. Oxon. p. 132, pl. iv. f. 19; Kirby, Cat. Het. p. 381.

♂. Silvery white; palpi fuscous at sides; abdomen tinged with fuscous. Fore wing with triangular brown patch on costa, irrorated with leaden silvery scales from base to middle of wing, and with tufts of brown and leaden scales on it near base, at middle and upper angle of cell; a tuft of white scales at lower angle of cell; a few brown scales forming faint traces of a medial line; the postmedial line angled at vein 6, formed by bosses of leaden scales, the area beyond it fuscous except towards costa; traces of a sub-terminal line with leaden scales on it. Hind wing white, tinged with fuscous towards termen.

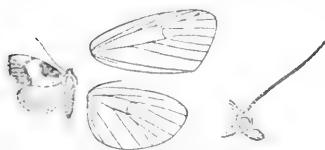


Fig. 21.—*Zia acontioides*, ♂. †.
(From Moths Ind. vol. ii.)

Hab. CEYLON, Nawalapitya (*Green*), 2 ♂; BORNEO, Sarawak (*Wallace*), type † in Mus. Oxon. *Exp.* 20 millim.

158. *Zia laminata*.

Accontia laminata, Hmps. Ill. Het. B. M. viii. p. 75, pl. 145. f. 5, ♀ (1891);
Moths Ind. ii. p. 145.

Pisara rufescens, Hmps. Moths Ind. ii. p. 145, ♂ (1894).

♀. Head and thorax white; abdomen fuscous banded with white. Fore wing white, irrorated with a few fuscous scales; a blackish spot at base of costa; the antemedial line fine, black, interrupted at median nervure and obsolete below vein 1; the postmedial line oblique from costa to vein 3, then excurved to below angle of cell; a triangular blackish patch on costa between the lines shot with purple and cupreous, its apex below the cell, and with tufts of dark scales on it at middle and upper angle of cell; a tuft of white scales at lower angle; the terminal area black and brown shot with purple and cupreous scales, except a large white patch on costa extending from apex to postmedial line at vein 5; some fuscous points on costa towards apex; an indistinct irregularly sinuous subterminal line. Hind wing fuscous.

♂. Abdomen white, brownish towards extremity; fore wing with the spot at base of costa represented by two points; the lower part of triangular medial patch and the terminal area much redder brown; hind wing reddish brown.

Hab. NILGIRIS (*Hampson*), 1 ♀ type; BURMA, Rangoon (*Scott*), 1 ♂, type *rufescens*. *Exp.*, ♂ 18, ♀ 24 millim.

159. *Zia lunisigna*. (Plate XX. fig. 34.)

Nola lunisigna, Hmps. Journ. Bomb. Nat. Hist. Soc. xi. p. 441 (1898).

♂. Greyish white; palpi black at base; abdomen fuscous, with segmental white rings. Fore wing irrorated with fuscous; a black spot below base of costa; the tufts near base and at middle and upper angle of cell rather small; traces of a sinuous subbasal line; the antemedial line fine, black, angled inwards above vein 1 and outwards below it; a prominent black lunule at upper angle of cell, with point above it on costa; a fine medial fuscous line from it to inner margin angled inwards below cell; the postmedial line black, oblique and punctiform from costa to vein 3, then bent inwards and stronger; a dentate fuscous subterminal line retracted to costa. Hind wing fuscous, paler towards inner margin.

Hab. ASSAM, Khásis, 1 ♂ type. *Exp.* 24 millim.

Genus ARCHINOLA.

Archinola, Hmps. P. Z. S. 1896, p. 258 Type.
pyralidia.

Proboscis aborted; palpi porrect, extending about twice the length of head and roughly scaled above and below; maxillary palpi large, triangularly scaled; frons smoothly scaled; antennae of male ciliated, with tuft of scales on basal joint; tibiae with the spurs long. Fore wing long and narrow; vein 3 from close to angle of cell; 4, 5 from angle; 6 from well below upper angle; 7, 8, 9

stalked; 10, 11 from cell. Hind wing with vein 3 from before angle of cell; 5 from just above angle; 6, 7 very strongly stalked; 8 from near end of cell.

160. *Archinola pyralidia*.

Archinola pyralidia, Hmps. P. Z. S. 1896, p. 259, pl. x. f. 23.

♂. Grey strongly irrorated with fuscous. Fore wing with slight blackish mark at base of costa; the tufts of scales near base and at middle and upper angle of cell very slight; an erect fuscous antemedial line; the postmedial line indistinct, curved from costa to vein 3, where it is retracted to below angle of cell. Hind wing paler brownish.



Fig. 22.—*Archinola pyralidia*, ♂. $\frac{3}{2}$.

Hab. ADEN (*Nurse*), 1 ♂ type. *Exp.* 16 millim.

Genus *MELALEUCIA*, nov.

Type, M. obliquifasciata.

Proboscis well developed. Palpi oblique, projecting about the length of head, the 2nd joint roughly scaled above and below, the 3rd naked, acuminate; frons smooth; antennæ of female simple, the basal joint not tufted; tibiæ with the spurs well developed. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle; 7 from angle; 8, 9 stalked from before angle; 10 absent; 11 oblique. Hind wing with vein 3 from angle of cell; 4 absent; 5 from middle of discocellulars; 6, 7 stalked; 8 from middle of cell.

161. *Melaleucia obliquifasciata*.

Nola obliquifasciata, Hmps. Moths Ind. iv. p. 503 (1896).

♀. Head white; palpi at sides and antennæ blackish; tegulæ and patagia white, the latter blackish at base; thorax and abdomen fuscous. Fore wing white, with blackish patch at base of costa edged with raised black scales; an oblique black-edged fuscous band irrorated with leaden scales from middle of costa to vein 1, somewhat constricted at middle and incurved at lower end, with a white spot on it at middle and a tuft of raised black scales at lower angle of cell; an obscure irregularly sinuous subterminal line, with patches of fuscous suffusion beyond it extending on inner half to the oblique band; cilia blackish. Hind wing brownish fuscous, with dark discoidal point and fine terminal line.



Fig. 23.—*Melaleucia obliquifasciata*, ♀. $\frac{3}{2}$.

Hab. CEYLON (*Green*), 1 ♀ type. *Exp.* 14 millim.

Genus **PEXINOLA**, nov.

Type, *P. longirostris*.

Proboscis fully developed; palpi porrect, extending quite three times the length of head and strongly curved downwards, the 2nd joint fringed with hair above and with tuft at extremity below, the 3rd well developed; antennæ of female minutely ciliated; legs long and slender, the spurs long. Fore wing elongate, narrow, the apex produced and acute; veins 2 and 3 curved, the former from close to angle of cell, the latter from angle; 4 from angle; 5 from above angle; 6 and 7 separate from below angle of cell; 8, 9 shortly stalked; 10, 11 from cell free. Hind wing with vein 2 from middle of cell; 3, 5 from angle; 4 absent; 6, 7 coincident; 8 from middle of cell; the median nervure and vein 1 strongly pectinated above.

162. *Pexinola longirostris*, n. sp.

♀. Head, thorax, and abdomen grey-white, strongly mixed with black. Fore wing grey, suffused with olive-brown and strongly

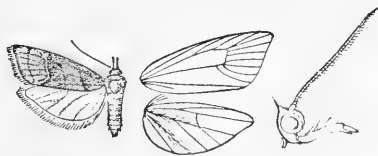


Fig. 24.—*Pexinola longirostris*, ♀. 1.

irrorated with black; an antemedial ridge of blackish scales tipped with white from subcostal nervure to vein 1; tufts of similar scales below the cell at origin of vein 2 and at upper angle, the latter with indistinct blackish line from it, bent outwards above inner margin; a diffused waved dark subterminal line. Hind wing grey-white.

Hab. TIBET, Yatung (*Hobson*), 1 ♀ type. *Evp.* 32 millim.

List of unrecognized Species.

Necle? *concinnulla*, Wlk. xxvii. 100. Borneo. Type lost; description insufficient.

Nola interrupta, Pag. Jahrb. Nass. Ver. xxxvii. p. 218 (1884); Kirby, Cat. Het. p. 372. Description insufficient.

Pisara ineffectalis, Cat. xxxi. 245 (1834); Kirby, Cat. Het. p. 381. Type lost.

Subfamily LITHOSIANÆ.

Proboscis usually well developed, but often aborted; palpi usually short and porrect, sometimes reaching well beyond the frons, often upturned, rarely reaching above vertex of head; antennæ of male usually with bristles and cilia, often bipectinate, sometimes dilated or with tuft of scales on upperside of shaft; ocelli absent; tibiæ with the spurs usually moderate, sometimes long or absent. Fore wing typically long and narrow, but in a large section short and broad, the narrow-winged genera having vein 5, and often vein 4, absent. Hind wing with vein 8 coincident with the cell from base to one-third or to near end of cell.

The more generalized forms of *Lithosiæ* have a very slightly modified venation in the fore wing; in *Diduga* all the veins arising from the cell except 7, 8; and the subfamily probably has its origin in an early *Arctid* form which was related to *Acronia* and its allies in the *Noctuidæ*.

The normal evolution of the venation seems to have been that 7, 8 and 9, 10 should become stalked, that 9 should then anastomose with 8 to form an areole, which in most of the genera has disappeared by reduction, leaving vein 9 stalked with 7, 8; in the genus *Hema* especially the areole being often either present or absent in different specimens of the same species.

The genus *Banasa* presents in the male a most extraordinary modification of the hind wing, which is probably unique in the *Lepidoptera*, the whole wing being reduced to a minute lobe below the base of the fore wing, except the inner area, which is largely developed, appearing at first sight like a normal hind wing, but in reality rotated at base, the upperside becoming the functional underside and the inner margin the functional costa.

The *Lithosiæ* as a group present great variety of structure as

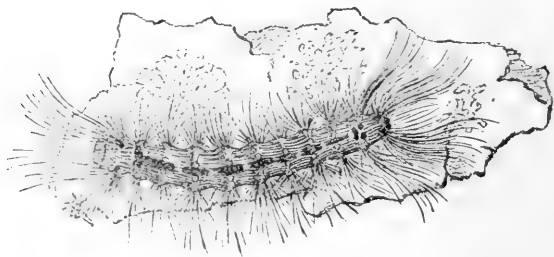


Fig. 25.—Larva of *Philagria entella*. ♂. (From *Moths Ind.* vol. ii.)

regards both venation and secondary sexual characters, so that the genera and sections of genera are very numerous.

Some of the most generalized forms seem to be *Hemonia*, *Tropæne*, and the genera allied to *Nudaria*; whilst another generalized form *Castulo*, with veins 7, 8 and 9, 10 stalked, seems

Graphosia. Lambula. Lepisia. Noblaria.

Scoliaema.

Blavia. Rhanghana.

Chrysoscota. Nishada. Gampola.

Hestiarcha.

Pheophlebosia. Lexis.

Parablavia.

Thermeola. Threnosia. Poliosia. Pusiola.

Crambidia.

Stenosia.

Rhagophanes.

Metoura.

Phaesia. Sozusa.

Pelosia. Phryganopsis. Mithuna. Tylanthes. Stenaulis. Macrosia. Ctenosia.

Mantala.

Bitecta.

Ilema. Hypagoptera. Calamidia.

Ocrosia. Omiosia.

Monotaxis. Isorropus. Chrysorabdia.

Holochrea. Pachycero.

Cyclosticta.

Mintopola.

Chrysægla.

Disaulota. Macroptila.

Maca

Æonistis. Agkonis. Disoidemata. Hypareva. Hyperthagylla.

Loboc

Agylla. Neagylla. Nephelosia. Lamprosia. Pasteosia.

Areva. Lysceia. Edaleosia. Conilepia. Procrimima

Metareva. Lithosia. Dohertya. Adrepsa. Ardonea. Pa

Paragylla.

Apistosia.

Pa

Ptychoglène.

Aglossosia.

Antona.

Tuina.

Caripodia. Dipl

Euryptidia. Josiodes. Meterythrosia. Cyptonychia. N

Glaucosia.

Cisthene.

Protosia.

through *Sceodora* to have given rise to the larger groups of genera, the *Mitochrista*-group retaining vein 5 in both wings, whilst the typical narrow-winged *Ilema*-group has lost vein 5 of both wings and often vein 4 also.

The larvæ are of the normal Aretid type with all the prolegs present, and are mostly lichen-feeders.

Key to the Genera.

- A. Fore wing with vein 5 absent.
- a. Hind wing with vein 5 absent.
 - a¹. Fore wing with vein 4 absent.
 - a². Hind wing with veins 3, 4 coincident.
 - a³. Fore wing with vein 2 stalked with 3 NEOBLAVIA, p. 105.
 - b³. Fore wing with vein 2 from cell.
 - a⁴. Fore wing with vein 6 stalked with 7, 8, 9 ;
11 from towards end of cell.
 - a⁵. Fore wing with vein 11 anastomosing
with 12 LEPISTA, p. 104.
 - b⁵. Fore wing with vein 11 free.
 - a⁶. Fore wing with vein 10 stalked with 6,
7, 8, 9 METEURA, p. 123.
 - b⁶. Fore wing with vein 10 from cell..... STENAUUS, p. 124.
 - b⁴. Fore wing with vein 6 from below angle of
cell, 11 from middle of cell.
 - a⁵. Fore wing with vein 2 from towards end
of cell, oblique..... BLAVIA, p. 105.
 - b⁵. Fore wing with vein 2 from middle of cell,
curved at base PARABLAVIA, p. 125.
 - b². Hind wing with veins 3, 4 stalked.
 - a³. Fore wing with vein 2 from near angle of
cell ; 6, 7, 8, 9 stalked..... SOZUSA, p. 128.
 - b³. Fore wing with vein 2 from middle of cell,
curved at base.
 - a⁴. Palpi upturned ; fore wing with vein 7 from
8 beyond 9 CHRYSOSCOTA, p. 109.
 - b⁴. Palpi porrect ; fore wing with vein 7 from
8 before 9.
 - a⁵. Proboscis aborted, minute CRAMBIDIA, p. 126.
 - b⁵. Proboscis fully developed.
 - a⁶. Fore wing with vein 11 anastomosing
with 12 PHLEOSIA, p. 128.
 - b⁶. Fore wing with vein 11 free MACROSIA, p. 129.
 - b¹. Fore wing with vein 4 present.
 - a². Hind wing with the discocellulars and veins 3
to 8 absent..... TYLANTHES, p. 123
 - b². Hind wing with the discocellulars and vein 6
absent HESTIARCHA, p. 95.
 - c². Hind wing with the discocellulars and veins 3
to 8 present.
 - a³. Hind wing with vein 2 stalked with 3.
 - a⁴. Fore wing with veins 6, 10, 11 stalked with
8, 9 RHANGHANA, p. 106
 - b⁴. Fore wing with veins 6, 10, 11 from cell ... LAMBULA, p. 97.
 - b³. Hind wing with vein 2 from cell.
 - a⁴. Fore wing with vein 8 stalked with 7.
 - a⁵. Fore wing with vein 9 stalked with 7,
from areole or absent.
 - a⁶. Fore wing with vein 7 from 8 beyond 9.
 - a⁷. Fore wing with vein 2 curved at base.

- a*⁷. Fore wing with the subcostal and median nervures approximated.
*a*⁹. Hind wing with veins 3, 4 coincident. GRAPHOSIA, p. 97.
*b*⁹. Hind wing with veins 3, 4 stalked ... GARUDINISTIS, p. 280.
*b*⁷. Fore wing with the cell normal.
*a*⁹. Hind wing with veins 3, 4 coincident SCOLIACMA, p. 102.
*b*⁹. Hind wing with veins 3, 4 stalked.
*a*¹⁰. Fore wing with vein 10 stalked with 7, 8, 9 SICULIFER, p. 291.
*b*¹⁰. Fore wing with vein 10 from cell... LEXIS, p. 115.
*c*⁹. Hind wing with veins 3, 4 from cell. NEOBROCHA, p. 498.
*b*⁷. Fore wing with vein 2 oblique.
*a*⁷. Fore wing with vein 6 stalked with 7, 8, 9.
*a*⁹. Hind wing with veins 6, 7 coincident. PNEOPHILEBOSIA, p. 109.
*b*⁹. Hind wing with veins 6, 7 stalked ... PUSIOLA, p. 119.
*b*⁷. Fore wing with vein 6 from the cell.
*a*⁹. Hind wing with vein 4 absent in ♂, usually present in ♀ NISHADA, p. 110.
*b*⁹. Hind wing with vein 4 present in ♂.
*a*¹⁰. Fore wing with vein 6 from angle of cell; hind wing with veins 6, 7 coincident or almost coincident .. THRENOSIA, p. 96.
*b*¹⁰. Fore wing with vein 6 below angle of cell; hind wing with vein 4 absent in ♀ GAMPOLA, p. 114.
*b*⁶. Fore wing with vein 7 from 8 before 9, or 9 absent.
*a*⁷. Hind wing with vein 4 absent.
*a*⁵. Fore wing with vein 2 stalked with 3, 4 PROCRIDIA, p. 355.
*b*⁷. Fore wing with vein 2 from cell.
*a*⁹. Fore wing with vein 10 from 11 anastomosing with 8, 9 to form the areole DISAULOTA, p. 189.
*b*⁹. Fore wing with vein 10 from cell.
*a*¹⁰. Fore wing with vein 11 anastomosing with 12 POLIOSIA, p. 106.
*b*¹⁰. Fore wing with vein 11 free LOBOBASIS, p. 259.
*b*⁷. Hind wing with vein 4 present.
*a*⁸. Fore wing with vein 2 stalked with 3, 4.. RHAGOPHAXES, p. 121.
*b*⁸. Fore wing with vein 2 from cell.
*a*⁹. Fore wing with veins 8, 9 absent ... STENOSIA, p. 92.
*b*⁹. Fore wing with vein 9 absent, 8 present.
*a*¹⁰. Fore wing with vein 2 from close to angle of cell.
*a*¹¹. Fore wing with vein 10 from the cell, 11 anastomosing with 12... THERMEOLA, p. 96.
*b*¹¹. Fore wing with vein 10 stalked with 6, 7, 8; 11 free..... CTENOSIA, p. 130.
*b*¹⁰. Fore wing with vein 2 from middle of cell PELOSIA, p. 93.
*c*⁹. Fore wing with veins 8, 9 present.
*a*¹⁰. Fore wing with vein 2 from toward end of cell, oblique.
*a*¹¹. Hind wing with vein 6 stalked with 7.
*a*¹². Palpi with the 3rd joint extending about the length of head MANTALA, p. 179.

- δ^{12} . Palpi with the 3rd joint minute.
 a^{13} . Fore wing without areole PHRYGANOPSIS, p. 120.
 b^{13} . Fore wing with areole..... ISORRUPUS, p. 182.
 b^{11} . Hind wing with vein 6 from below angle of cell..... HYPAGOPTERA, p. 179.
 δ^{10} . Fore wing with vein 2 from middle of cell, curved at base.
 a^{11} . Hind wing with the cell open; a recurrent vein in cell CHRYSORABDIA, p. 183.
 b^{11} . Hind wing with the cell closed; no recurrent vein in cell.
 a^{12} . Fore wing with vein 10 stalked with 7, 8, 9 MITHUNA, p. 122.
 b^{12} . Fore wing with vein 10 from the cell.
 a^{13} . Palpi upturned; fore wing with vein 3 from angle of cell CALAMIDIA, p. 181.
 δ^{13} . Palpi porrect.
 a^{14} . Fore wing with veins 3, 4 stalked or from angle of cell.
 a^{15} . Palpi with the 3rd joint long and extending about the length of head BITECTA, p. 180.
 b^{15} . Palpi hardly extending beyond frons ILENA, p. 130.
 b^{14} . Fore wing with vein 3 from well before angle of cell, curved at base.
 a^{15} . Hind wing with veins 3, 4 stalked, 6, 7 coincident..... CONILEPIA, p. 219.
 b^{15} . Hind wing with veins 3, 4 from cell; 6, 7 from cell ... MONOTAXIS, p. 181.
 b^5 . Fore wing with vein 9 from cell..... CHLOROGENIA, p. 538.
 b^4 . Fore wing with vein 8 stalked with 9 CONOSIA, p. 542.
 δ . Hind wing with vein 5 present.
 a^1 . Fore wing with vein 11 anastomosing with 12.
 a^2 . Fore wing with an areole; veins 10, 11 becoming coincident with 12; hind wing with veins 2, 3 stalked AGKONIA, p. 187.
 b^2 . Fore wing without an areole; hind wing with vein 3 from the cell NEASURA, p. 422.
 b^1 . Fore wing with vein 11 not anastomosing with 12.
 a^2 . Fore wing with vein 10 stalked with 7, 8; 9 absent.
 a^3 . Hind wing with vein 5 from angle of cell ... BYRSIA, p. 281.
 b^3 . Hind wing with vein 5 from well above angle of cell.
 a^4 . Fore wing with veins 3, 4 stalked..... LICNOPTERA, p. 332.
 b^4 . Fore wing with vein 3 from before angle of cell PSEUDOBALABES, p. 269.
 b^2 . Fore wing with vein 10 from cell.
 a^3 . Fore wing with vein 6 stalked with 7, 8 ... PADENIA (δ), p. 263.
 b^3 . Fore wing with vein 6 from cell.
 a^4 . Fore wing with vein 9 absent GARUDINIA, p. 261.
 b^4 . Fore wing with vein 9 present.
 a^5 . Fore wing with vein 9 stalked with 7, 8.
 a^6 . Hind wing with veins 6, 7 and 3, 4 coincident STENOSCAPIA, p. 280.
 b^6 . Hind wing with veins 6, 7 stalked.
 a^7 . Fore wing with veins 2, 3 stalked, 4 absent SCAPHIDRIOTIS, p. 496.

- a^7 . Fore wing with veins 2, 3 from cell, 4 present.
 a^8 . Hind wing with veins 3, 4 coincident ; fore wing with vein 7 from 8 before 9. CHRYSALLACTIS, p. 334.
 b^4 . Hind wing with veins 3, 4 stalked ; fore wing with vein 7 from 8 beyond 9 ... NEOSCAPTIA, p. 282.
 c^8 . Hind wing with veins 3, 4 from cell... HECTOBRUCHA, p. 497.
 c^6 . Hind wing with veins 6, 7 from cell..... BLABIODES, p. 279.
 b^5 . Fore wing with vein 9 from cell HETERALLACTIS, p. 538.
- B. Fore wing with vein 5 present *.
 a . Hind wing with vein 5 absent, coincident with 4 †.
 a^1 . Thorax below and palpi clothed with long hair ; proboscis aborted ENDROSA, p. 415.
 b^1 . Thorax smoothly scaled below.
 a^2 . Fore wing with vein 7 stalked with 8, or 8, 9 absent.
 a^3 . Fore wing with vein 9 stalked with 7, 8, or absent.
 a^4 . Fore wing with vein 5 stalked with 4.
 a^5 . Hind wing with veins 6, 7 coincident.
 a^6 . Fore wing with vein 6 stalked with 7, 8, 9 NEPHELOSIA, p. 214.
 b^6 . Fore wing with vein 6 from the cell..... LYCOMORPHODES, [p. 378.
 b^5 . Hind wing with veins 6, 7 stalked.
 a^6 . Fore wing with vein 11 anastomosing with 12.
 a^7 . Fore wing with veins 10, 11 stalked ... OMIOSIA, p. 269.
 b^7 . Fore wing with veins 10, 11 from cell.
 a^8 . Fore wing with vein 9 absent PROCRIMIMA, p. 223.
 b^8 . Fore wing with vein 9 present
 a^9 . Antennæ with the shaft not dilated ; fore wing with vein 6 from angle of cell PASTEOSIA, p. 217.
 b^9 . Antennæ with the shaft dilated at middle ; fore wing with vein 6 from below angle of cell..... PARAMULONA, p. 386.
 b^6 . Fore wing with vein 11 free.
 a^7 . Fore wing with vein 10 stalked with 7, 8, 9 NOLOSIA, p. 385.
 b^7 . Fore wing with vein 10 from the cell.
 a^8 . Fore wing with the costa and termen excised towards apex..... TORTRICOSIA, p. 291.
 b^8 . Fore wing with the costa and termen not excised towards apex AREVA, p. 215.
 b^1 . Fore wing with vein 5 from the cell.
 a^1 . Fore wing with veins 8, 9 absent.
 a^6 . Fore wing with veins 6, 7, and 10 stalked, 11 from cell TERATOPORA, p. 271.
 b^6 . Fore wing with vein 6 from cell, 7, 10, 11 stalked LYMANTRIOPSIS, p. 465.
 b^1 . Fore wing with vein 8 present.
 a^6 . Fore wing with veins 3, 4 stalked.
 a^7 . Fore wing with vein 9 absent DARANTASIA, p. 271.
 b^7 . Fore wing with vein 9 present..... APAIDIA, p. 467.
 b^6 . Fore wing with veins 3, 4 from cell.
 a^7 . Fore wing with vein 7 from 8 after 9.

* 4, 5 sometimes coincident in *Lycomorphodes*.

† Vein 5 sometimes from just before termen in *Endrossa* and *Cincia*.

- α^8 . Hind wing with veins 3, 4 coincident.
 α^9 . Fore wing with vein 6 stalked with 7, 8, 9 PHAULOSIA, p. 355.
 δ^9 . Fore wing with vein 6 from the cell.
 α^{10} . Fore wing with vein 5 from angle of cell CHRYSOCHLOROSIA, [p. 351.
 δ^{10} . Fore wing with vein 5 from near middle of discocellulars ODOZANA, p. 352.
 δ^8 . Hind wing with veins 3, 4 stalked.
 α^9 . Palpi upturned.
 α^{10} . Hind wing with veins 6, 7 stalked. PACHYCEROSIA, p. 270.
 δ^{10} . Hind wing with veins 6, 7 from cell..... MULONA, p. 386.
 δ^8 . Palpi porrect, not extending beyond the frons.
 α^{10} . Hind wing with veins 6, 7 stalked.
 α^{11} . Frons with rounded prominence and flattened corneous plate CEDALEOSIA, p. 219.
 δ^{11} . Frons without prominence DIARHABDOSIA, p. 517.
 δ^{10} . Hind wing with vein 7 from well before angle of cell ÆTHOSIA, p. 385.
 α^9 . Palpi extending well beyond the frons.
 α^{10} . Fore wing with vein 11 anastomosing with 12..... PTYCHOGLENE, p. 239.
 δ^{10} . Fore wing with vein 11 free.
 α^{11} . Hind wing with veins 6, 7 stalked. HYPOPREPIA, p. 515.
 δ^{11} . Hind wing with veins 6, 7 from cell TUINA, p. 242.
 α^8 . Hind wing with veins 3, 4 from cell.
 α^9 . Hind wing with veins 6, 7 stalked ... EUBOLICHE, p. 345.
 δ^9 . Hind wing with veins 6, 7 from cell . METERYTHROSIA, p. 242.
 δ^7 . Fore wing with vein 7 from 8 before 9, or 9 absent.
 α^8 . Hind wing with veins 6, 7 coincident.
 α^9 . Fore wing with vein 9 absent HYPERMERPHA, p. 351.
 δ^9 . Fore wing with vein 9 present TALARA, p. 380.
 δ^8 . Hind wing with veins 6, 7 not coincident.
 α^9 . Fore wing with vein 11 anastomosing with 12.
 α^{10} . Hind wing with veins 3, 4 stalked. LEUCORHODEA, p. 354.
 δ^{10} . Hind wing with veins 3, 4 from cell ARDONEA, p. 224.
 δ^9 . Fore wing with vein 11 free.
 α^{10} . Hind wing with veins 3, 4 coincident CHIONOSIA, p. 359.
 δ^{10} . Hind wing with veins 3, 4 stalked.
 α^{11} . Fore wing with vein 10 stalked with 7, 8, 9.
 α^{12} . Proboscis aborted; frons with rounded prominence DOHERTYA, p. 222.
 δ^{12} . Proboscis fully developed; frons not prominent ADREPSA, p. 222.
 δ^{11} . Fore wing with vein 10 from the cell... CINCIA, p. 388.
 α^{10} . Hind wing with vein 3 from the cell.
 α^{11} . Palpi oblique; fore wing with vein 5 from angle of cell..... CHRYSÆGLIA, p. 181.
 δ^{11} . Palpi porrect; fore wing with vein 5 from above angle of cell. EURYLONIA, p. 518.

- b*³. Fore wing with vein 9 from 10 anastomosing with 8 to form the areole.
*a*⁴. Fore wing with vein 5 stalked with 4.
*a*⁵. Fore wing with vein 3 stalked with 4, 5... LAMPROSIA, p. 217.
*b*⁵. Fore wing with vein 3 from the cell.
*a*⁶. Fore wing with vein 11 anastomosing with 12 LYSCEIA, p. 218.
*b*⁶. Fore wing with vein 11 free METAREVA, p. 216.
*b*⁴. Fore wing with vein 5 from the cell.
*a*⁵. Fore leg with tibial claw.
*a*⁶. Frons with rounded prominence; fore wing with vein 7 from 8 beyond 9 ... CARCINOPODIA, p. 249.
*b*⁶. Frons without prominence; fore wing with vein 7 from 8 before 9 GNAMPTONYCHIA, p. 251.
*b*⁵. Fore leg without tibial claw.
*a*⁶. Fore wing with vein 3 from angle of cell; hind wing with veins 3, 4 stalked LITHOSIA, p. 220.
*b*⁶. Fore wing with vein 3 from well before angle of cell; hind wing with veins 3, 4 from cell APISTOSIA, p. 225.
*c*⁷. Fore wing with vein 9 from the cell CHRYSOZANA, p. 553.
*b*². Fore wing with veins 6, 7 and 8, 9 stalked.
*a*⁴. Fore wing with vein 11 anastomosing with 12..... EUGOA, p. 543.
*b*³. Fore wing with vein 11 free; hind wing with veins 3, 4 stalked CYCLOSIELLA, p. 548.
*c*². Fore wing with veins 6, 7 from cell, 8, 9 stalked METALLOSIA, p. 555.
*d*². Fore wing with veins 6, 7 stalked, 8, 9 from cell..... HEMONIA, p. 556.
*e*². Fore wing with veins 6, 7, 8 from cell, 9 absent PAREMONIA, p. 557.
b. Hind wing with vein 5 present*.
*a*¹. Fore wing without an areole.
*a*². Fore wing with vein 9 stalked with 7, 8, or 8, 9 absent.
*a*³. Fore wing with vein 7 from 8 after 9†.
*a*⁴. Hind tibiae with the medial spurs absent.
*a*⁵. Proboscis aborted; hind wing with veins 6, 7 stalked.
*a*⁶. Palpi upturned; frons with rounded prominence BRUCEIA, p. 514.
*b*⁶. Palpi porrect; frons without prominence. THYONE, p. 346.
*b*⁵. Proboscis fully developed.
*a*⁶. Hind wing with veins 6, 7 coincident ... ZYGENOSIA, p. 423.
*b*⁶. Hind wing with veins 6, 7 stalked GYMNASURA, p. 425.
*b*⁴. Hind tibiae with the medial spurs present.
*a*⁵. Fore wing with vein 11 anastomosing with 12.
*a*⁶. Antennae fringed with scales above at middle LITHOPROCRIS, p. 342.
*b*⁶. Antennae without fringe of scales above.
*a*⁷. Hind wing with veins 3, 4 coincident; proboscis present METALOBOSIA, p. 373.
*b*⁷. Hind wing with veins 3, 4 stalked; proboscis minute..... NUDARIDIA, p. 420.
*c*⁷. Hind wing with veins 3, 4 from cell.
*a*⁷. Proboscis aborted; frons rounded HÆMATOMIS, p. 514.

* In *Philea* rarely coincident with 4.

† In *Macaduma*, Sect. 1, vein 8 is absent.

- b*⁵. Proboscis fully developed.
*a*⁹. Fore wing with vein 2 from towards angle of cell; frons with sharp tuft. ADOXOSIA, p. 397.
*b*⁹. Fore wing with vein 2 from middle of cell; frons rounded SYMMETRODES, p. 258.
*b*⁵. Fore wing with vein 11 free.
*a*⁶. Fore wing with veins 6 and 10 stalked with 7, 8, 9.
*a*⁷. Both wings with veins 4, 5 stalked CYCLOSTICTA, p. 188.
*b*⁷. Fore wing with veins 4, 5 stalked; hind wing with vein 5 from cell OCROSIA, p. 268.
*c*⁷. Both wings with vein 5 from above angle of cell HOLOCHIREA, p. 268.
*b*⁶. Fore wing with veins 6, 7, 8, 9 stalked, 10 from cell.
*a*⁷. Fore wing with veins 3, 4 stalked.
*a*⁴. Proboscis aborted EUGONOSIA, p. 295.
*b*⁴. Proboscis present RHODOGRAPHIA, p. 295.
*b*⁷. Fore wing with veins 3, 4 from cell ... DISOIDEIMATA, p. 188.
*c*⁶. Fore wing with vein 6 from cell; 7, 8, 9, 10 stalked.
*a*⁷. Hind wing with veins 6, 7 coincident... PRONOLA, p. 294.
*b*⁷. Hind wing with veins 6, 7 stalked; proboscis well developed..... EUTANE, p. 495.
*c*⁷. Hind wing with veins 6, 7 from cell; proboscis aborted..... CYCLOMILTA, p. 512.
*d*⁶. Fore wing with veins 6 and 10 from cell*.
*a*⁷. Proboscis aborted.
*a*⁸. Frons with rounded prominence; fore leg with tibial claws AGLOSSOSIA, p. 247.
*b*⁸. Frons without rounded prominence; fore leg without tibial claws..... NEPHELOMILTA, p. 468.
*b*⁷. Proboscis present.
*a*⁸. Hind wing with veins 4, 5 stalked ... MINTOPOLA, p. 189.
*b*⁴. Hind wing with vein 5 from the cell.
*a*⁹. Hind wing with vein 5 obsolescent from just below angle of discocellulars CHIONEMA, p. 296.
*b*⁹. Hind wing with vein 5 fully developed, from well below angle of discocellulars.
*a*¹⁰. Hind wing with veins 3, 4 stalked or coincident.
*a*¹¹. Fore wing with veins 4, 5 stalked . SCAPTESYLE, p. 283.
*b*¹¹. Fore wing with vein 5 from cell.
*a*¹². Fore wing with veins 3, 4 shortly stalked HELIOSIA, p. 275.
*b*¹². Fore wing with vein 3 from the cell.
*a*¹³. Palpi upturned.
*a*¹⁴. Hind wing with veins 3, 4 coincident.
*a*¹⁵. Hind wing with vein 5 from angle of cell.
*a*¹⁶. Fore wing thinly scaled, the costa strongly arched at base COSTARCHA, p. 293.
*b*¹⁶. Fore wing thickly scaled ... SICCIA, p. 359.

* In *Scaptosyle dichotoma* vein 6 is stalked with 7, 8, 9.

- b*¹⁵. Hind wing with vein 5 from well above angle of cell.
*a*¹⁶. Fore wing with the costa arched and fringed with rough hair towards base; vein 3 from angle of cell... TOSPITIS, p. 270.
*b*¹⁶. Fore wing with the costa normal; vein 3 from well before angle of cell HALONE, p. 276.
*b*¹⁴. Hind wing with veins 3, 4 stalked.
*a*¹⁵. Fore wing with the costa and termen angled at middle ... MACADUMA, p. 266.
*b*¹⁵. Fore wing with the costa and termen not angled CAPRIMA, p. 286.
*b*¹³. Palpi porrect.
*a*¹⁴. Fore wing with the costa excised towards apex, the termen above and below middle. OXACME, p. 292.
*b*¹⁴. Fore wing with the shape normal.
*a*¹⁵. Hind wing with vein 2 from near angle of cell.
*a*¹⁶. Hind wing with veins 3, 4 coincident..... UTRICULIFERA, p. 290.
*b*¹⁶. Hind wing with veins 3, 4 stalked STICTOSIA, p. 293.
*b*¹⁵. Hind wing with vein 2 from long before angle of cell ... EUROSIA, p. 330.
*b*¹⁰. Hind wing with vein 3 from the cell.
*a*¹¹. Fore wing with vein 10 from close to 11 OVIPENNIS, p. 410.
*b*¹¹. Fore wing with vein 10 from towards end of cell.
*a*¹². Palpi upturned CLEMENSIA, p. 398.
*b*¹². Palpi porrect.
*a*¹³. Hind wing with vein 3 from close to angle of cell..... NODOZANA, p. 375.
*b*¹³. Hind wing with vein 3 from well before angle of cell.
*a*¹⁴. Fore wing with vein 2 from middle of cell, curved at base STICTANE, p. 258.
*b*¹⁴. Fore wing with vein 2 from well beyond middle of cell, oblique THALLARCHA, p. 499.
*b*³. Fore wing with vein 7 from 8 before 9, or 9 absent.
*a*⁴. Hind wing with veins 3, 4 stalked or coincident.
*a*⁵. Fore wing with vein 9 absent.
*a*⁶. Antennæ with the medial part of shaft dilated..... SERIPHA, p. 377.
*b*⁶. Antennæ with the shaft not dilated.
*a*⁷. Fore wing with vein 11 anastomosing with 12.
*a*⁸. Fore wing with veins 4, 5 stalked..... PAREUGOA, p. 405.
*b*⁸. Fore wing with veins 4, 5 from cell.
*a*⁹. Proboscis aborted; hind wing with veins 6, 7 coincident NUDOSIA, p. 337.

- b⁹. Proboscis developed; hind wing with veins 6, 7 stalked UROZANA, p. 378.
 b⁷. Fore wing with vein 11 free. EUCYCLOPERA, p. 263.
 a⁸. Fore wing with veins 3, 4, 5 stalked .
 b⁸. Fore wing with veins 4, 5 stalked, 3 from cell.
 a⁹. Hind wing with vein 5 stalked with 3, 4..... STENARCHIA, p. 264.
 b⁹. Hind wing with vein 5 from the cell. PADENIA (♀), p. 263.
 c⁸. Fore wing with veins 3, 4, 5 from the cell.
 a⁹. Proboscis aborted PAIDIA, p. 466.
 b⁹. Proboscis fully developed.
 a¹⁰. Palpi upturned XANTHETIS, p. 414.
 b¹⁰. Palpi porrect NARASODES, p. 265.
 b⁵. Fore wing with vein 9 present.
 a⁶. Fore wing with vein 11 anastomosing with 12.
 a⁷. Fore wing with veins 10, 11 stalked ... MACHÆROPHORA, p. 411.
 b⁷. Fore wing with veins 10, 11 from cell.
 a⁸. Hind wing with veins 3, 4 coincident. BARSINELLA, p. 384.
 b⁸. Hind wing with veins 3, 4 stalked ... THUMATHA, p. 420.
 b⁶. Fore wing with vein 11 curved and approximated to 12.
 a⁷. Hind wing with vein 5 stalked with 3, 4 XANTHOLOPHIA, p. 356.
 b⁷. Hind wing with vein 5 from the cell ... PREFIELLA, p. 356.
 c⁶. Fore wing with vein 11 oblique.
 a⁷. Fore wing with veins 3, 4 stalked.
 a⁸. Palpi upturned, reaching above vertex of head PALPIDIA, p. 513.
 b⁸. Palpi minute NUDINA, p. 468.
 b⁷. Fore wing with veins 3, 4 from cell.
 a⁸. Fore wing with vein 10 stalked with 7, 8, 9 ÆOLOSLIA, p. 404.
 b⁸. Fore wing with vein 10 from cell.
 a⁹. Palpi upturned.
 a¹⁰. Hind wing with vein 5 from angle of cell LAMPROSTOLA, p. 360.
 b¹⁰. Hind wing with vein 5 from above angle of cell CALLISTHENIA, p. 362.
 b⁹. Palpi porrect..... BRACHIOSIA, p. 334.
 b⁴. Hind wing with vein 3 from, or from close to angle of cell.
 a⁵. Fore wing with vein 11 anastomosing with 12.
 a⁶. Antennæ with the shaft fringed with scales above DIPÆNA, p. 343.
 b⁶. Antennæ with the shaft not fringed with scales.
 a⁷. Hind tibiæ with the medial spurs absent TRICHOLEPIS, p. 424.
 b⁷. Hind tibiæ with the medial spurs present.
 a⁸. Fore wing with veins 10, 11 stalked... ASURIDIA, p. 412.
 b⁸. Fore wing with veins 10, 11 from cell.
 a⁹. Palpi upturned.
 a¹⁰. Hind wing with veins 4, 5 shortly stalked.
 a¹¹. Fore wing with veins 4, 5 stalked. MACROPTILA, p. 190.
 b¹¹. Fore wing with veins 4, 5 from cell. BALBURA, p. 341.

- b*¹⁰. Hind wing with veins 4, 5 from cell.
*a*¹¹. Palpi with the 1st two joints fringed with scales in front CLOËSIA, p. 345.
*b*¹¹. Palpi with the 1st two joints not fringed with scales in front HYPOSICCIA, p. 406.
*b*⁹. Palpi porrect.
*a*¹⁰. Proboscis aborted, minute.
*a*¹¹. Abdomen dorsally smoothly scaled. PHILEA, p. 418.
*b*¹¹. Abdomen clothed with rough hair on dorsum..... CYBOSIA, p. 418.
*b*¹⁰. Proboscis fully developed.
*a*¹¹. Hind wing with veins 6, 7 coincident GRAPTASURA, p. 421.
*b*¹¹. Hind wing with veins 6, 7 stalked. ASURA, p. 426.
*b*⁵. Fore wing with vein 11 free.
*a*⁶. Hind tibiæ with the medial spurs absent.
*a*⁷. Fore wing with veins 7, 8, 9, 10 stalked. NYCTOSIA, p. 253.
*b*⁷. Fore wing with veins 6, 7 stalked, 8, 9 absent, 10 from cell POLIODULE, p. 339.
*b*⁶. Hind tibiæ with two pairs of spurs.
*a*⁷. Fore wing with vein 10 stalked with 7, 8, 9 absent AFRIDA, p. 348.
*b*⁷. Fore wing with vein 10 from cell, or stalked with 11.
*a*⁸. Fore wing with veins 4, 5 stalked..... HYPAREVA, p. 191.
*b*⁸. Fore wing with veins 4, 5 from cell.
*a*⁹. Fore wing with veins 10, 11 from a point or shortly stalked.
*a*¹⁰. Palpi upturned IDOPTERUM, p. 410.
*b*¹⁰. Palpi porrect MELANEMA, p. 413.
*b*⁹. Fore wing with veins 10, 11 well separated.
*a*¹⁰. Fore wing with vein 2 strongly curved at base CEONISTIS, p. 185.
*b*¹⁰. Fore wing with vein 2 oblique.
*a*¹¹. Palpi upturned.
*a*¹². Palpi reaching vertex of head ... PARASICCIA, p. 407.
*b*¹². Palpi not reaching vertex of head. ILlice, p. 363.
*b*¹¹. Palpi porrect or oblique.
*a*¹². Hind wing with veins 6, 7 stalked, 8 from beyond middle of cell... MILTOCHRISTA, p. 469.
*b*¹². Hind wing with veins 6, 7 from cell, 8 from middle of cell.
*a*¹³. Head, thorax, and abdomen clothed with long hair, build stout LERINA, p. 513.
*b*¹³. Head, thorax, and abdomen smoothly scaled..... NEOPLYNES, p. 520.
*c*¹. Hind wing with vein 3 from well before angle of cell.
*a*⁵. Fore wing with vein 10 stalked with 7, 8, 9 LEPTOPEPLA, p. 520.
*b*¹. Fore wing with vein 10 from the cell.
*a*⁶. Fore wing with vein 11 anastomosing with 12.
*a*⁷. Fore wing with vein 6 stalked with 7... CAULOCERA, p. 529.
*b*⁷. Fore wing with vein 6 from the cell.
*a*⁸. Proboscis and palpi minute ACHROËSIA, p. 337.
*b*⁸. Proboscis and palpi well developed.
*a*⁹. Hind wing with vein 5 from angle of cell; 8 from middle of cell..... ANTONA, p. 231.

- b*⁹. Hind wing with vein 5 from well above angle of cell; 8 from towards end of cell.
*a*¹⁰. Antennæ with the shaft clothed with rough hair above TRICHOCEROSIA, p. 563.
*b*¹⁰. Antennæ without rough hair on shaft XANTHOCRASPEDA, p. 541.
*b*⁶. Fore wing with vein 11 becoming coincident with 10 HEMIPSILIA, p. 532.
*c*⁶. Fore wing with vein 11 free.
*a*⁷. Fore wing with vein 9 absent.
*a*³. Antennæ with the basal joint very long; fore wing with vein 8 present . CHAMAITA, p. 530.
*b*³. Antennæ with the basal joint moderate.
*a*⁹. Fore wing with vein 6 stalked with 7, 8.
*a*¹⁰. Fore wing with the basal joint rather long and tufted with hair. NUDARIA, p. 533.
*b*¹⁰. Fore wing with the basal joint short, not tufted with hair..... AMALODETA, p. 532.
*b*⁹. Fore wing with vein 6 from cell.
*a*¹⁰. Fore wing with vein 8 absent.
*a*¹¹. Proboscis, palpi, vein 10 of fore wing and 6 of hind wing absent... PAUROPHLEPS, p. 531.
*b*¹¹. Proboscis, palpi, vein 10 of fore wing and 6 of hind wing present . PALEOPSIS, p. 531.
*b*¹⁰. Fore wing with vein 8 present..... EUTELESIA, p. 398.
*b*⁷. Fore wing with vein 9 present.
*a*³. Palpi upturned EURYPTIDIA, p. 230.
*b*³. Palpi porrect.
*a*³. Palpi reaching beyond the frons..... COMACLA, p. 338.
*b*³. Palpi not reaching beyond the frons.
*a*¹⁰. Hind wing with vein 5 from angle of cell JOSIODES, p. 233.
*b*¹⁰. Hind wing with vein 5 from above angle of cell CISTHENE, p. 243.
*b*². Fore wing with veins 9, 10 stalked.
*a*³. Fore wing with veins 9, 10 stalked from 7, 8; hind wing with veins 3, 4, 5 stalked ... NEAGYLLA, p. 213.
*b*³. Fore wing with veins 9, 10 stalked from the cell.
*a*⁴. Hind wing with veins 4, 5 stalked.
*a*⁵. Palpi upturned PARAGYLLA, p. 213.
*b*³. Palpi porrect..... GLAUCOSIA, p. 229.
*b*⁴. Hind wing with vein 5 from above angle of cell.
*a*⁵. Hind wing with veins 6, 7 coincident..... METEUGOA, p. 335.
*b*⁵. Hind wing with veins 6, 7 stalked.
*a*⁹. Proboscis aborted..... XANTHODULE, p. 340.
*b*⁶. Proboscis developed.
*a*⁷. Fore wing with veinlets between vein 12 and the costa SCHISTOPHLEPS, p. 527.
*b*⁷. Fore wing without veinlets between vein 12 and the costa.
*a*³. Hind wing with veins 3, 4 coincident . PARELICTIS, p. 521.
*b*⁴. Hind wing with veins 3, 4 from cell.
*a*⁹. Palpi oblique, frons with large tuft . HOLOCRASPEDUM, p. 336.
*b*⁹. Palpi porrect, frons without tuft..... PHILENORA, p. 506.
*c*⁵. Hind wing with veins 6, 7 from cell CASTULO, p. 522.
*c*². Fore wing with veins 6, 7 and 8, 9 stalked.
*a*³. Fore wing with veins 4, 5 stalked TRISCHALIS, p. 549.

- b*³. Fore wing with veins 4, 5 from cell.
*a*⁴. Hind wing with veins 4, 5 stalked; proboscis present STIGMATOPHORA, p. 550.
*b*⁴. Hind wing with veins 4, 5 from cell; proboscis aborted HYPERUGOA, p. 553.
*d*². Fore wing with veins 6, 7 from cell.
*a*³. Fore wing with vein 11 anastomosing with 12 BÆNESA, p. 554.
*b*⁴. Fore wing with vein 11 free TROPACME, p. 555.
*d*². Fore wing with vein 9 from the cell.
*a*³. Fore wing with veins 6, 7 stalked, 8 absent . GYMNOCHROMA, p. 537.
*b*⁴. Fore wing with vein 6 from the cell, 7, 8 stalked DIDUGA, p. 539.
*c*⁴. Fore wing with all the veins from cell DARANTOIDES, p. 565.
*b*¹. Fore wing with an areole.
*a*². Palpi upturned.
*a*³. Fore wing with vein 7 from 8 beyond 9..... HYPERTHAGYLLA, p. 192.
*b*³. Fore wing with vein 7 from 8 before 9.
*a*⁴. Fore wing with veins 9, 10 anastomosing with 8 to form the areole..... AGRISIUS, p. 256.
*b*⁴. Fore wing with vein 9 from 10 anastomosing with 8 to form the areole.
*a*⁵. Fore wing with veins 4, 5 stalked or from angle of cell..... AGYLLA, p. 193.
*b*⁵. Fore wing with vein 5 from above angle of cell SYNTOMIMORPHA, p. 254.
*b*². Palpi porrect.
*a*³. Fore tibiæ with long curved claw at extremity.
*a*⁴. Hind wing with veins 3, 4 stalked; fore wing with vein 11 free CARIPODIA, p. 248.
*b*⁴. Hind wing with veins 4, 5 stalked.
*a*⁵. Hind tibiæ with the medial spurs absent . ONYCHIPODIA, p. 250.
*b*⁵. Hind tibiæ with the medial spurs present. INOPSIS, p. 252.
*c*⁴. Hind wing with veins 3, 4 from cell.
*a*⁵. Fore wing with vein 11 anastomosing with 12 DIPLONYX, p. 249.
*b*⁵. Fore wing with vein 11 free..... CYPTONYCHIA, p. 253.
*b*³. Fore tibiæ without a claw.
*a*⁴. Fore wing with vein 11 anastomosing with 12 PALEOSIA, p. 227.
*b*⁴. Fore wing with vein 11 free.
*a*⁵. Hind wing with vein 5 from angle of cell or stalked with 4.
*a*⁶. Palpi not reaching beyond the frons ... PARAONA, p. 228.
*b*⁶. Palpi reaching well beyond the frons ... PROTOSIA, p. 255.
*b*⁵. Hind wing with vein 5 from well above angle of cell PALEOSICCIA, p. 505.

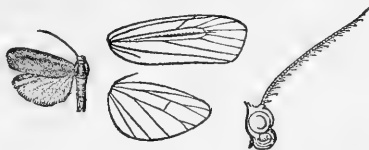
Genus STENOSIA, nov.

Type, *S. rufecola*.

Proboscis fully developed; palpi porrect, not extending as far as frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow, the apex rounded, the inner margin highly arched towards base; vein 2 from middle of cell, oblique; 3 from well before angle; 5 absent; 6 from upper angle; 8, 9 absent; 10 free; 11 anastomosing with 12; male with a fold in cell. Hind wing with vein 2 from middle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked; 8 from middle of cell.

163. *Stenosia rufeola*, n. sp.

♂. Bright rufous brown; abdomen greyish, the anal tuft yellow. Fore wing with traces of a postmedial line formed by some fuscous

Fig. 26.—*Stenosia rufeola*, ♂. 1.

scales between costa and fold in cell and between submedian fold and inner margin. Hind wing pale rufous.

Hab. BALI (*Doherty*), 1 ♂ type. *Exp.* 20 millim.

Genus **PELOSIA**.

	Type.
<i>Pelosia</i> , Hübn. Verz. p. 165 (1827)	<i>muscerda</i> .
<i>Samera</i> , Wllgrn. Wien. ent. Mon. vii. p. 146.....	<i>muscerda</i> .
<i>Paidina</i> , Staud. Rom. Mém. iii. p. 184 (1887), non descr.....	<i>ramulosa</i> .

Palpi porrect, extending as far as frons and fringed with hair below; frons roughly scaled; antennae of male serrate and fasciculate; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing with the costa arched, the termen rounded; vein 2 from middle of cell, curved at base; 5 absent; 7, 8 stalked; 9 absent; 10 from cell; 11 anastomosing with 12. Hind wing with vein 2 from before angle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 moderately stalked; 8 from middle of cell.

SECT. I. Proboscis slight, aborted. Fore wing with veins 3, 4 very shortly stalked; 6 from below angle of cell.

164. *Pelosia obtusa*.

Paidia obtusa, Herr.-Schäff. Schmett. Eur. vi. p. 53, Bomb. f. 161 (1847); Staud. Cat. p. 52; Kirby, Cat. Het. p. 321.

Gampola noctis, Butl. Trans. Ent. Soc. 1881, p. 8; Kirby, Cat. Het. p. 320. *Paidia obtrita*, Staud. Rom. Mém. iii. p. 183, pl. 10. f. 8 (1887); Kirby, Cat. Het. p. 321.

Paidia angusta, Staud. Rom. Mém. iii. p. 182, pl. 10. f. 7 (1887); Kirby, Cat. Het. p. 364.

Paidina obtusa, var. *sutschana*, Staud. Rom. Mém. vi. p. 260 (1892).

♂. Fuscous brown. Fore wing with the veins streaked with fuscous; a postmedial series of fuscous points oblique from costa to lower angle of cell, where it is strongly angled, then very oblique to middle of inner margin. Hind wing rather more fuscous.

Ab. 1. *sutschana*. Rather darker. Fore wing with the veins strongly streaked with black.

Ab. 2. *obtrita*. Fore wing with the points conjoined into a line.

Ab. 3. *noctis*. Ground-colour black-brown; fore wing with postmedial line.

Ab. 4. *angusta*. A similar but much smaller form.

Hab. ITALY, type in Coll. Staudinger; AMUR, 1 ♂, and ab. *angusta* 1 ♂; JAPAN, Tokio (*Fenton, Pryer*), 2 ♂, type *noctis*, Kurigahara (*Lewis*), 1 ♂. *Exp.* 20–28 millim., *angusta* 18 millim. Types † *sutschana*, *obtrita*, *angusta* in Coll. Staudinger.

SECT. II. Proboscis well developed; fore wing with veins 3, 4 moderately stalked.

A. (*Pelosia*). Fore wing with vein 6 stalked with 7, 8.

165. *Pelosia muscerda*.

Phalæna muscerda, Hüfn. Berl. Mag. iii. (4) p. 400 (1767); Hübn. Eur. Schmiett. ii. Bomb. f. 103; Steph. Ill. Brit. Ent., Haust. ii. p. 97; Dup. Lép. Fr., Suppl. iii. p. 32, pl. 1. f. 6; Boisd. Icones, ii. p. 108, pl. 58. f. 5; Staud. Cat. p. 53; Kirby, Cat. Het. p. 321.
Noctua cinerina, Esp. Schmiett. iv. 2 (2) p. 67 (1786).
Noctua pudorina, Esp. Schmiett. iv. 2 (2) p. 67, pl. 196. ff. 4, 5 (1786).
Tinea perletta, Fabr. Mant. Ins. ii. p. 241 (1787).

Brownish grey. Fore wing with the costal area pale to beyond middle, the edge of costa black towards base; obliquely placed



Fig. 27.—*Pelosia muscerda*, ♂. 1.

black medial spots in submedian fold and on vein 1; an oblique series of four black spots from costa beyond middle to beyond lower angle of cell. Hind wing pale towards base.

Hab. BRITAIN, E. Counties; FRANCE; GERMANY, Zell. and Frey Colls.; LIVONIA: DALMATIA; JAPAN, Yesso, 1 ♂, Yokohama (*Pryer*), 1 ♀. *Exp.* 30–34 millim.

Larva. Meyrick, Brit. Lep. p. 28; Barrett, Lep. Brit. ii. p. 210, pl. 66. f. 6.

Blackish brown mixed with reddish grey; hairs dark brown; dorsal and subdorsal lines black; subspiracular line reddish grey, interrupted; two deep-red spots on somite 1 and one on somite 12; head black. Food-plant, lichens and dead leaves; 8–6.

B. (*Paidina*). Fore wing with vein 6 from angle of cell.

- a. Fore wing with four black points *tetrasticta*.
- b. Fore wing without black points *ramulosa*.

166. *Pelosia tetrasticta*, n. sp.

♂. Very pale brownish grey. Fore wing with two obliquely-

placed black points below end of cell and two black points beyond the cell on veins 3 and 7.



Fig. 28.—*Pelosia tetrasticta*, ♂. ½.

Hab. SHANGHAI, SNOWY Valley (*Pryer*), 1 ♂ type. *Exp.* 22 millim.

167. *Pelosia ramulosa*.

Lithosia (Paidina) ramulosa, Staud. Rom. Mém. iii. p. 184, pl. 10. f. 13 (1887); Kirby, Cat. Het. p. 321.

Head and thorax pale grey-brown; abdomen grey. Fore wing pale yellowish brown; the veins streaked with fuscous. Hind wing white tinged with brown, slightly deeper towards apex.

Hab. AMUR, 1 ♀. *Exp.* 28 millim. Type † in Coll. Staudinger.

Genus **HESTIARCHA**.

Hestiarcha, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 736 (1886) ... *pyrrhopa*. Type.

Proboscis aborted; palpi minute; antennæ bipectinate; thorax and abdomen clothed with rough hair. Fore wing rather narrow; vein 2 from towards end of cell; 3, 4 stalked; 5 absent; 6, 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with veins 3, 4 stalked from 2; the discocellulars absent; 6, 7 coincident from 8.

168. *Hestiarcha pyrrhopa*.

Hestiarcha pyrrhopa, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 736 (1886); Kirby, Cat. Het. p. 349.

♂. Dark brown. Hind wing orange, with broad terminal fuscous-brown band of nearly even width throughout.

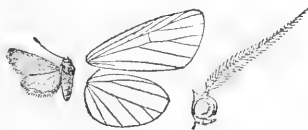
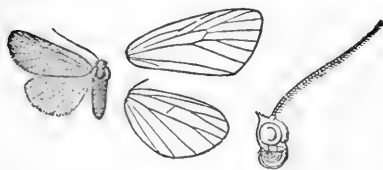


Fig. 29.—*Hestiarcha pyrrhopa*, ♂. ½.

Hab. S. AUSTRALIA, 1 ♂, Port Lincoln, type † in Coll. Meyrick. *Exp.* 18 millim.

Genus **THERMEOLA**, nov.Type, *T. tasmanica*.

Proboscis fully developed; palpi porrect, not extending beyond frons; antennæ of male ciliated; vertex of head roughly scaled; tibiæ with the spurs short; abdomen clothed with rough hair. Fore wing rather narrow, the costa slightly arched, the apex rounded, the termen obliquely curved; the scaling hairy; vein 2 from near angle of cell, oblique; 3, 4 stalked; 5 absent; 6 from below upper angle; 7, 8 stalked; 9 absent; 10 from cell; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3, 4 and 6, 7 on long stalks; 5 absent; 8 from middle of cell.

169. *Thermeola tasmanica*, n. sp.Fig. 30.—*Thermeola tasmanica*, ♂. 1.

♂. Pale yellow-brown.

Fore wing with very indistinct fuscous streak below the cell and band from costa beyond middle to middle of inner margin. Hind wing yellow.

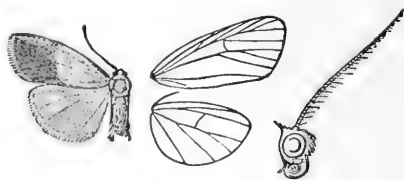
Hab. TASMANIA, Hobart (J. J. Walker), 1 ♂ type. *Exp.* 28 millim.

Genus **THRENOSIA**, nov.Type, *T. heminephes*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons, which is clothed with rough hair; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and rather narrow; vein 2 from well beyond middle of cell, oblique; 3, 4 stalked; 5 absent; 6 from upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 absent; 6, 7 coincident or almost coincident; 8 from middle of cell.

*170. *Threnosia heminephes*.

Tigrioides heminephes, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 697 (1886); Kirby, Cat. Het. p. 340.

Fig. 31.—*Threnosia heminephes*, ♂. 1.

♂. Orange-yellow; sides of frons and antennæ brownish; patagia fuscous; tibiæ and tarsi streaked with fuscous. Fore

wing with the costa blackish towards base; a very broad terminal fuscous band occupying more than one-third of wing, not reaching costa and with its upper edge concave.

Hab. N. S. WALES, Bathurst, type † ♂ in Coll. Meyrick. *Exp.* 34 millim.

Genus **GRAPHOSIA**, nov.

Type, *G. bilineata*.

Proboscis fully developed; palpi porrect, not reaching as far as frons, which has a tuft of hair; antennæ with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather long and narrow, the costa arched towards apex, the termen rather short; cell narrow at base, the median and subcostal nervures approximated; vein 2 from well before angle, curved towards base; the lower part of cell short and the discocellulars oblique; 3, 4 on a long stalk; 5 absent; 6 stalked with 7, 8, 9; 7 from 8 beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from near angle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked nearly to termen; male with a fold containing flocculent scales on basal half of costa.

171. *Graphosia bilineata*, n. sp.

♂. Head and thorax brownish ochreous; abdomen clothed with yellow hair. Fore wing pale ochreous; a fuscous antemedial line oblique from costa to just below median nervure, where it



Fig. 32.—*Graphosia bilineata*, ♂. 1.

is angled, then outwardly oblique, obsolescent towards costa and inner margin; a fuscous postmedial line acutely angled inwards below costa, then widening to veins 3, 4, where it sends a spur outwards, obsolescent to vein 1, where it is angled inwards, then excurved again; some

fuscous on costa towards apex, on termen, and on the veins towards termen. Hind wing pale ochreous.

Hab. S.W. NEW GUINEA, Kapaur (*Doherty*), 1 ♂ type. *Exp.* 22 millim.

Genus **LAMBULA**.

	Type.
<i>Lambula</i> , Wlk. xxxv. 1890 (1866)	<i>metaleuca</i> .
<i>Palæxera</i> , Meyr. P. Linn. Soc. N. S. W. (2) i. p. 690 (1886)	<i>phylloides</i> .

Proboscis fully developed; palpi porrect, reaching just beyond frons; the 2nd joint fringed with hair below; antennæ with cilia and bristles; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather narrow, the costa arched; vein 1 more or less bent upwards towards vein 2 near base; vein 2 from near angle of cell in female, from angle in male; 3, 4 strongly stalked; 5 absent; 6 from just above middle of discocellulars; 7, 8, 9 stalked, 7 given off beyond 9*; 10 from angle of cell and strongly curved; 11 anastomosing with 12. Hind wing with vein 2 stalked with 3, 4, which are coincident; 5 absent.

* Except in one abnormal specimen of *L. laniasfera*.

SECT. I. Antennæ of male with the shaft thickened by a ridge of scales above towards base; fore wing with a small fold on upperside of costa before middle; hind wing with a fold on inner area; veins 6, 7 coincident; 8 from beyond angle of cell.

172. *Lambula plicata*, n. sp.

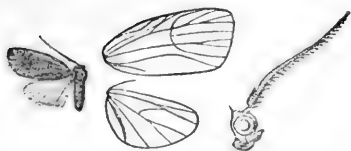


Fig. 33.—*Lambula plicata*, ♂. 1.

♂. Head and thorax yellow-brown; abdomen fuscous. Fore wing yellow, thickly irrorated with red-brown. Hind wing yellow, brownish towards termen, more orange towards inner margin.

Hab. S.W. NEW GUINEA, Kapaur (*Doherty*), 1 ♂ type. *Exp.* 18 millim.

SECT. II. Antennæ of male without ridge of scales.

A. Fore wing of male with large fold on middle of costa on underside; the claspers very long and tufted with hair.

a. Hind wing of male with a small fold at base of costa on underside; veins 6, 7 coincident; 8 from middle of cell; 6, 7 stalked in female.

a¹. Fore wing of male with a cross-vein between veins 1 and 2, vein 1 strongly bent upwards.

a². Hind wing of male with the coincident veins 6, 7 strongly bent upwards; the area in and above end of cell with tufts of large scales; a fringe of large scales in lower part of cell.

173. *Lambula laniafera*, n. sp.

Head, thorax, and abdomen fuscous brown; genital tufts yellowish. Fore wing yellow irrorated with red-brown; some fuscous on base of costa; a diffused somewhat outwardly-oblique medial line expanding into a purplish-fuscous patch on inner margin; some purplish fuscous on termen, widening to apex. Hind wing fuscous.

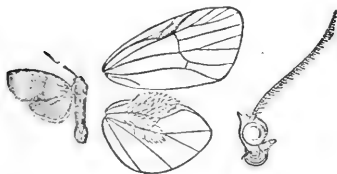


Fig. 34. —*Lambula laniafera*, ♂. 1.

In one male vein 9 of fore wing is given off from 8 beyond 7.

Hab. S.W. NEW GUINEA, Kapaur (*Doherty*), 4 ♂, 1 ♀ type. *Exp.* 20 millim.

- b*². Hind wing of male with the coincident veins 6, 7 straight; the cell short, with fringes of hair on subcostal and median nervures.

174. *Lambula iridescens*.

Scoliaema iridescens, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1068 (1890); Kirby, Cat. Het. p. 288.

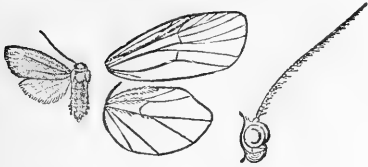


Fig. 35.—*Lambula iridescens*, ♂. †.

bane (Turner), 1 ♂. Exp. 24 millim.

♂. Head, thorax, and fore wing ochreous tinged with fulvous; abdomen greyish, ochreous towards extremity. Hind wing paler ochreous, the medial part of costal area tinged with fuscous on underside.

Hab. QUEENSLAND, Bris-

- b*¹. Fore wing of male without cross-vein between veins 1 and 2, vein 1 slightly bent upwards; hind wing with tuft of scales above end of cell on underside.

- a*². (*Palæxera*). Hind wing with the coincident veins 6, 7 curved upwards; 8 from beyond angle of cell; a patch of androconia in and below cell on upperside.

*175. *Lambula phyllodes*.

Palæxera phyllodes, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 699 (1886); Kirby, Cat. Het. p. 341.

- ♂. Head and thorax rufous; abdomen ochreous, with the anal tuft yellower. Fore wing rufous, the terminal area ochreous irrorated with rufous. Hind wing ochreous, with the patch of androconia orange-yellow; the terminal area with slight fuscous suffusion.

Underside of fore wing

with the fold and disk suffused with fuscous; hind wing with the scales above end of cell fuscous.

Hab. N. S. WALES, Sydney, type † ♂ in Coll. Meyrick. Exp. 24 millim.

- b*². (*Lambula*). Hind wing with veins 6, 7 straight; 8 from middle of cell; no patch of androconia in cell.

- a*³. Hind wing of male with veins 6, 7 coincident.

- a*¹. Hind wing dark fuscous..... *fuliginosa*.

- b*⁴. Hind wing yellowish white *pallida*.

176. *Lambula fuliginosa*.

Lithosia fuliginosa, Wlk. Journ. Linn. Soc., Zool. vi. p. 106 (1862); Swinh. Cat. Het. Mus. Oxon. p. 124; Kirby, Cat. Het. p. 320.

- ♂. Uniform fuscous brown; genital tufts with a fulvous tinge.
 ♀. Paler fuscous brown; fore wing with traces of oblique medial line.



Fig. 37.—*Lambula fuliginosa*, ♂. †.

Hab. BORNEO, Sarawak (*Wallace*), 8 ♂, 3 ♀. *Exp.* 20 millim.
 Type† in Mus. Oxon.

177. *Lambula pallida*, n. sp. (Plate XX. fig. 18.)

♀. Head, thorax, and fore wing very pale yellow-brown, the last with indistinct postmedial line curved from costa to vein 3, then retracted to below end of cell; abdomen and hind wing yellowish white.

Hab. BORNEO, Sarawak (*Wallace*), 3 ♀, S.E. Borneo (*Doherty*), 2 ♀, type. *Exp.* 16–20 millim.

*b*². Hind wing of male with veins 6, 7 stalked.

178. *Lambula melaleuca*.

Lambula melaleuca, Wlk. xxxv. 1890 (1866); Kirby, Cat. Het. p. 382.

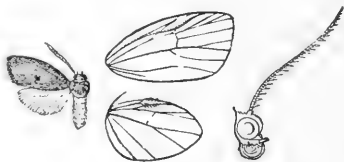


Fig. 38.—*Lambula melaleuca*, ♂. †.

♂. Head, thorax, and fore wing deep fuscous brown; abdomen and hind wing white with a slight yellowish tinge.

Hab. SULA (*Wallace*), 1 ♂ type. *Exp.* 20 millim.

b. Hind wing of male without costal fold, or tuft of scales on underside.

<i>a</i> ¹ . Hind wing dark fuscous	<i>punctifer</i> .
<i>b</i> ¹ . Hind wing pale yellow	<i>pristina</i> .

179. *Lambula punctifer*, n. sp. (Plate XX. fig. 19.)

♂. Head and thorax yellow-brown; abdomen fuscous, the anal tufts yellowish. Fore wing brownish yellow, the inner area

irrorated with red-brown; patches of brown scales on vein 2 near base and on inner area just beyond middle. Hind wing fuscous.

Hab. S.W. NEW GUINEA, Kapaur (*Doherty*), 1 ♂ type. *Exp.* 20 millim.

180. *Lambula pristina*.

Lithosia pristina, Wlk. xxxv. 1885 (1866); Kirby, Cat. Het. p. 325.



Fig. 39.—*Lambula pristina*, ♀. †.

♀. Yellowish white; fore and mid tibiæ and tarsi tinged with fuscous. Fore wing irrorated with brown scales; the apex narrowly fuscous. Hind wing pale yellow.

Hab. QUEENSLAND, Moreton Bay (*Diggles*), 1 ♀ type. *Exp.* 26 millim.

B. Fore wing of male without costal fold; the claspers normal; hind wing with veins 6, 7 coincident, 8 from beyond angle of cell.

- a. Hind wing brown..... *transcripta*.
b. Hind wing orange, with terminal black band *orbonella*.

181. *Lambula transcripta*.

Tigrioides transcripta, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1069 (1890); Kirby, Cat. Het. p. 341.

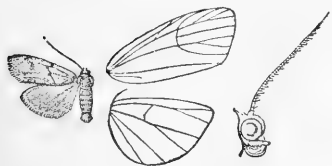


Fig. 40.—*Lambula transcripta*, ♂. †.

♂. Ochreous brown. Fore wing irrorated with fuscous, especially on basal and post-medial areas; a medial blackish line acutely angled outwards in cell, then oblique; the dark scaling on postmedial area forming an obscure patch on costa. Hind wing more fuscous brown, the cilia yellowish.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♂. *Exp.* 22 millim.

182. *Lambula orbonella*, n. sp. (Plate XXIII. fig. 1.)

♂. Head, tegulæ, and patagia orange; antennæ blackish; thorax blackish; legs orange, the tibiæ banded with black; abdomen black, the anal tuft orange mixed with fuscous. Fore wing fuscous black, the base yellow. Hind wing orange-yellow, with terminal fuscous-black band, expanding widely on apical area, its inner edge rather irregular.

Hab. N. GUINEA, Kapaur (*Doherty*), 1 ♂ type. *Exp.* 18 millim.

Genus **SCOLIACMA**.

Scoliacma, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 695 (1886) ... *bicolora*. Type.

Proboscis fully developed; palpi porrect, not reaching beyond frons which is smoothly scaled; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing narrow; the costa nearly straight, the termen very obliquely rounded; vein 2 from middle of cell; 3 from before angle parallel to 4, or 3, 4 stalked; 5 absent; 6 usually shortly stalked with 7, 8, 9; 7 from 8 beyond 9; 10 from cell; 11 anastomosing with 12. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident; 5 absent; 8 from near middle of cell.

SECT. I. Antennæ of male with fascicles of long cilia and bristles; fore wing with patch of dark androconia on underside below and beyond the cell, covered by the costa of hind wing, which is very strongly lobed and folded near base, the apex strongly excised; 6, 7 stalked and bent upwards.

- A. Head and thorax brownish..... *orthotoma*.
 B. Head and thorax orange-yellow *nephelozona* (♀).

183. *Scoliacma orthotoma*.

Scoliacma orthotoma, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 696 (1886); Kirby, Cat. Het. p. 288.

♂. Head and thorax dull brownish yellow; abdomen yellowish. Fore wing dull brownish yellow, the patch of androconia on underside blackish. Hind wing yellow.



Fig. 41.—*Scoliacma orthotoma*, ♂. 1.

Hab. VICTORIA, Melbourne, Raynor Coll., 1 ♂. *Exp.* 24 millim. Type† in Coll. Meyrick.

*184. *Scoliacma nephelozona*. (Plate XX. fig. 25.)

Tigrioides nephelozona, Meyr. Traus. Ent. Soc. 1889, p. 458; Kirby, Cat. Het. p. 341.

♀. Head and thorax orange-yellow; antennæ fuscous; patagia, mesothorax, and legs tinged in part with fuscous; abdomen greyish fuscous, orange-yellow at extremity, on sides and ventral surface. Fore wing ochreous yellow, with obscure diffused fuscous postmedial band oblique from vein 4 to inner margin; the apex and termen slightly tinged with fuscous. Hind wing pale yellow.

Hab. N. GUINEA, type† ♀ in Coll. Meyrick. *Exp.* 36 millim.

SECT. II. Antennæ of male with cilia and bristles; fore wing with strong costal fold and tuft of hair from base of costa; hind wing with the costa strongly arched.

- A. Hind wing with an elliptical swelling in cell bisected by a rib down the middle; veins 6, 7 coincident in male.

185. *Scoliacma bicolora*.

Lithosia bicolora, Boisd. Voy. Astrolabe, Lép. p. 211, pl. 3. f. 9 (1832);

Kirby, Cat. Het. p. 288.

Lithosia rubrata, Tepp. Trans. R. Soc. S. Austr. v. p. 30 (1882).

Head and tegulæ crimson; palpi and antennæ blackish; thorax and abdomen blackish; legs with more or less crimson; anal tuft crimson. Fore wing crimson, the terminal area black, its inner edge running obliquely from below costa to middle of inner margin,



Fig. 42.—*Scoliacma bicolora*, ♂. 1.

the basal half often more or less completely suffused with black except on costal area and inner margin; cilia crimson. Hind wing with the basal half crimson, the terminal half black with rather irregular inner edge running obliquely to inner margin above tornus; cilia crimson.

Hab. N. S. WALES, 5 ♀; VICTORIA; S. AUSTRALIA; TASMANIA, 2 ♂, 3 ♀ (*Allport, J. J. Walker*). *Exp.* 34 millim.

B. Hind wing of male normal.

- | | |
|--|-----------------------|
| a. Fore wing grey with white costal fascia | <i>spilarcha</i> (♀). |
| b. Fore wing uniform brown | <i>brunnea</i> (♀). |
| c. Fore wing ochreous | <i>pactolias</i> . |

*186. *Scoliacma spilarcha*.

Tigrioides spilarcha, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 699 (1836); Kirby, Cat. Het. p. 341.

♀. Head and thorax fuscous grey; frons white; abdomen sparsely clothed with pale yellow hair. Fore wing fuscous grey; a broad white costal fascia from base attenuated to a point beyond middle; obliquely placed postmedial obscure dark points at junction of veins 3, 4 and on inner margin; cilia pale ochreous. Hind wing ochreous yellow.



Fig. 43.—*Scoliacma spilarcha*, ♀. 1.

Hab. N. S. WALES, Sydney, type ♀ in Coll. Meyrick. *Exp.* 28 millim.

*187. *Scoliacma brunnea*. (Plate XX. fig. 26.)

Scoliacma brunnea, Druce, A. M. N. II. (7) iv. p. 201 (1899).

♀. Head, tegulae, and patagia except at tips orange-yellow; palpi dark at tips; thorax and abdomen brown with a slight purplish tinge, the extremity and ventral surface, the coxae and femora orange. Fore wing red-brown. Hind wing darker brown.

Hab. N. GRIFFIN, Port Moresby (*Goldie*), type ♀ in Coll. Druce. *Exp.* 34 millim.

*188. *Scoliacma pactolias*. (Plate XXXIV. fig. 22.)

Scoliacma pactolias, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 696 (1886); Kirby, Cat. Het. p. 288.

Tigrioides acosma, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 10.

Head, thorax, abdomen, and legs ochreous yellow; palpi and antennae fuscous. Fore wing ochreous yellow irrorated with a few fuscous scales. Hind wing pale ochreous yellow.

Hab. N. QUEENSLAND, Johnstone R., type ♀ *acosma* in Coll. Turner; VICTORIA, Melbourne. *Exp.* 31 millim.

Genus **LEPISTA**.

<i>Lepista</i> , Wlgrn. Wien. ent. Mon. vii. p. 146 (1863)	Type.
<i>Dyphlebia</i> , Feld. Reis. Nov. p. 4 (1874).....	<i>pandula</i> .

Proboscis fully developed; palpi roughly scaled, porrect, not extending beyond frons, which is rounded; antennae of male serrate and fasciculate; tibiae with the spurs short; abdomen clothed with rough hair. Fore wing narrow, the costa nearly straight, the termen short; vein 2 from well before angle of cell, oblique; 3, 4 coincident; 5 absent; 6, 7, 8, 9 stalked; 10 free; 11 from towards end of cell, anastomosing with 12. Hind wing with vein 2 well before angle; 3, 4 coincident; 5, absent; 6, 7 stalked; 8 from middle of cell.

A. Fore wing orange, with terminal black band..... *pandula*.

B. Fore wing leaden grey, with orange costal fascia *semiochracea*.

189. *Lepista pandula*.

Lithosia pandula, Boisd., Delegorgue, Voy. Afr. Austr. ii. p. 597 (1847); Kirby, Cat. Het. p. 313.

Dyphlebia trimenii, Feld. Reis. Nov. pl. 106. f. 32 (1874).

Dyphlebia limbata, Butl. P. Z. S. 1888, p. 98; Kirby, Cat. Het. p. 313.

♂. Head, thorax, and abdomen black; orange patches between antennae and on shoulders; hind tibiae mostly orange; abdomen



Fig. 44.—*Lepista pandula*, ♂. 1.

with the anal segment and ventral surface orange; wings orange. Fore wing with black patch at base of inner area; the terminal third black, its inner edge angled inwards at veins 6 and 1. Hind wing with the

terminal third black, narrowing to a point at tornus.
♀. Head mostly orange; abdomen with the ventral surface black, leaving the extremity and lateral stripes orange.

Hab. E. AFRICA, Kilima'njaro (*Jackson*), 1 ♂ type *limbata*, Nairobi (*Crawshay*) 1 ♂; BR. C. AFRICA, Zomba (*Johnston*) 1 ♀; DELAGOA BAY (*Mrs. Monteiro*), 1 ♀; NATAL, Karkloof, Malvern (*Marshall*), 1 ♂, 1 ♀; CAPE COLONY. *Exp.* 26 millim.

190. *Lepista semiochracea*.

Dyphlebia semiochracea, Feld. Reis. Nov., Lep. pl. 106. f. 31 (1874); Kirby, Cat. Het. p. 313.

♂. Head, thorax, and abdomen black; tegulæ orange; abdomen with orange lateral fasciæ towards extremity and the anal tuft orange. Fore wing dark leaden grey; an orange costal fascia narrowing to a point before apex. Hind wing leaden grey from middle of inner margin to termen below apex, with sinuous edge, the rest of wing orange.

Hab. NATAL, Karkloof (*Marshall*), 2 ♂; CAPE COLONY. *Exp.* 22 millim.

Genus **NEOBLAVIA**, nov.

Type, *N. scoteola*.

Proboscis fully developed; palpi porrect, hardly reaching beyond the frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate. Fore wing narrow; veins 2 and 3 stalked; 4, 5 absent; 6 shortly stalked with 7, 8, 9; 10 free; 11 given off at right angles to cell and becoming coincident with 12; male with large elliptical patch of androconia in cell. Hind wing with vein 2 from near angle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell; a large patch of androconia in, beyond, and below the cell.

191. *Neoblavia scoteola*, n. sp.

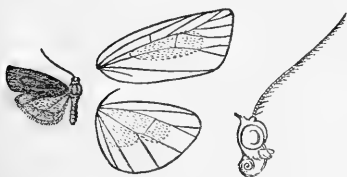


Fig. 45.—*Neoblavia scoteola*, ♂. 1.

♂. Black-brown. Fore wing with a few grey scales in the patch of androconia in cell. Hind wing with the patch of androconia rather redder brown; the terminal area somewhat greyish; the cilia yellowish.

Hab. SIKHIM, 2600 ft. (*Pilcher*), 1 ♂ type. *Exp.* 18 millim.

Genus **BLAVIA**.

Blavia, Wlk. Journ. Linn. Soc., Zool. vi. p. 108 (1862) Type. *caliginosa*.

Proboscis fully developed; palpi porrect, extending just as far as frons, the 2nd joint fringed with hair below; frons smoothly scaled; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen smoothly scaled. Fore wing long and narrow, the costa nearly straight, the termen short; vein 2 from before angle of cell, oblique; 3, 4 coincident; 5 absent; 6 from below upper angle; 7, 8, 9 stalked; 10 free; 11 given off almost at right angles to subcostal nervure and becoming coincident with 12. Hind wing with vein 2 from long before angle of cell; 3, 4 coincident; 5 absent; 6, 7 on a long stalk; 8 from middle of cell; male with a large patch of androconia in, beyond, and below the cell on upperside.

192. *Blavia caliginosa*.

Blavia caliginosa, Wlk. Journ. Linn. Soc., Zool. vi. p. 108 (1862); Swinh. Cat. Het. Mus. Oxon. p. 104; Kirby, Cat. Het. p. 381.



Fig. 46.—*Blavia caliginosa*, ♂. 1.

♂. Black-brown; wings slightly paler and redder brown towards termen; cilia yellowish.

Hab. BORNEO, Sarawak, 9 ♂ (*Wallace*). *Exp.* 20 millim. Type † in Mus. Oxon.

Genus *RHANGHANA*.

Type.
punctata.

Rhanghana, Moore, P. Z. S. 1878, p. 22

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of female ciliated; tibiæ with the spurs short. Fore wing long and narrow, the apex produced; the cell less than one half wing; vein 2 from angle and curved at base; 3, 4 on a long stalk; 6, 7, 8, 9, 10, 11 stalked; 11 anastomosing with 12. Hind wing with veins 2, 3 stalked; 4, 5 absent, the cell short; 6, 7 stalked; 8 from towards end of cell.

*193. *Rhanghana punctata*.

Rhanghana punctata, Moore, P. Z. S. 1878, p. 22, pl. ii. f. 12; Hmps. Moths Ind. ii. p. 124; Kirby, Cat. Het. p. 333.



Fig. 47.—*Rhanghana punctata*, ♀. 1.

♀. Pale ochreous brown. Fore wing with a series of small black spots, of which three are on the costa towards apex and six on termen.

Hab. CALCUTTA (*Atkinson*), type † ♀ in Coll. Staudinger. *Exp.* 32 millim.

Genus *POLIOSIA*, nov.

Type, *P. muricolor*.

Proboscis fully developed; palpi porrect, hardly reaching as far as frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow, the costa arched towards apex, the termen short; vein 2 from well before angle of cell, curved at base; 3, 4 stalked; 5 absent; 6 from well below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Hind wing of male with small elliptical patch of androconia between base of vein 8 and cell.

- A. Wings with brownish terminal band *marginata*.
 B. Wings without terminal band *pulverea*.

194. *Poliosia marginata*, n. sp.



Fig. 48.—*Poliosia marginata*, ♂. $\frac{1}{2}$.

♂. Whitish grey; abdomen with the anal tuft ochreous. Fore wing with broad brownish-grey terminal band. Hind wing whiter, with rather broad brownish terminal band; the patch of androconia on underside fuscous.

Hab. BORNEO, Pulo

Laut (*Doherty*), 1 ♂ type. *Exp.* 26 millim.

195. *Poliosia pulverea*, n. sp. (Plate XX. fig. 21.)

Brownish grey. Fore wing irrorated with pale brown scales, the inner area browner. Hind wing browner, the patch of androconia fuscous.

Hab. S.E. BORNEO, 1 ♂; Sarawak, 2 ♀; PULO LAUT, 1 ♂ (*Doherty*), type. *Exp.*, ♂ 22, ♀ 30 millim.

SECT. II. Hind wing of male without patch of androconia.

- A. Fore wing dark grey, with yellow costal fascia *muricolor*.
 B. Fore wing grey-brown, without costal fascia.
 a. Head and tegulae yellow; fore wing with black point below end of cell *punctivena*.
 b. Head and tegulae dark.
 *a*¹. Fore wing with black points in and below end of cell *binotata*.
 *b*¹. Fore wing without black points *brunnea*.
 C. Fore wing yellow-brown, with dark postmedial line *cubitifera*.
 D. Fore wing grey-white; frons black *nigrifrons*.
 E. Fore wing pale ochreous *fragilis*.

196. *Poliosia muricolor*.

Lithosia muricolor, Wlk. Journ. Linn. Soc., Zool. vi. p. 105 (1862); Hmps. Journ. Bomb. Nat. Hist. Soc. xi. p. 297 (1897); Kirby, Cat. Het. p. 325.



Fig. 49.—*Poliosia muricolor*, ♂. $\frac{2}{3}$.

Fuscous grey; frons and fore tibiae and tarsi blackish; vertex of head yellowish white; ventral surface of abdomen yellowish white. Fore wing with the costa and cilia yellowish white.

Hab. BORNEO, Sarawak (*Wallace*), 5 ♂, 2 ♀, type. *Exp.* 18 millim.

Subsp. 1. *parva*, Moore, P. Z. S. 1878, p. 16, pl. i. f. 13; Hmps. Moths Ind. ii. p. 81; Kirby, Cat. Het. p. 324.

Vertex of head and costa and cilia of fore wing yellower; hind wing with the cilia yellow.

Hab. SIKHIM, type † ♂ in Coll. Staudinger; ASSAM, Khâsis, 1 ♂, 1 ♀. *Exp.*, ♂ 20, ♀ 24 millim.

197. *Poliosia punctivena*. (Plate XX. fig. 22.)

Gampola punctivena, Hmps. Journ. Bomb. Nat. Hist. Soc. 1898, p. 297.

♂. Head and tegulae yellow; thorax and abdomen grey-brown, the anal tuft yellow. Fore wing grey-brown, with black point in submedian fold below end of cell. Hind wing pale fuscous; cilia of both wings yellowish.

Hab. SIKHIM, 1800 ft. (*Dudgeon*), 1 ♂ type. *Exp.* 18 millim.

198. *Poliosia binotata*.

Prabhasa binotata, Hmps. Ill. Het. ix. p. 81, pl. 158. f. 24 (1893); Moths Ind. ii. p. 90.

Head and thorax grey-brown irrorated with fuscous; abdomen fuscous, the anal tuft ochreous. Fore wing grey-brown irrorated with fuscous; black points in end of cell and below end of cell in submedian interspace. Hind wing pale fuscous.

Hab. CEYLON, Nawalapitya, 1 ♂ type, Pundaloya, 1 ♀ (*Green*). *Exp.*, ♂ 20, ♀ 26 millim.

199. *Poliosia brunnea*.

Dolgoma brunnea, Moore, P. Z. S. 1878, p. 20, pl. ii. f. 8 (♀); Hmps. Moths Ind. ii. p. 81; Kirby, Cat. Het. p. 331.

Gampola normalis, Hmps. Moths Ind. iv. p. 496, ♂ (1896).

♂. Greyish brown; tibiae, tarsi, and anal tuft ochreous. Fore wing thickly and uniformly irrorated with darker brown. Hind wing pale grey-brown, suffused with yellow-brown towards base.

♀. Hind wing uniform dark brown.

Hab. SIKHIM (*Pitcher*), 1 ♂, Moore Coll., 1 ♀ type; ASSAM, Khâsis, 2 ♂. *Exp.* 24 millim. Type † *normalis* in Coll. Elwes.

200. *Poliosia cubitifera*. (Plate XX. fig. 23.)

Lithosia cubitifera, Hmps. Moths Ind. ii. p. 82 (1894).

♀. Yellow, more or less suffused with brown; abdomen grey. Fore wing with purplish-fuscous postmedial line bent outwards at vein 4, then erect. Hind wing pale yellow.

Hab. SIKHIM (*Dudgeon*), 2 ♀; ASSAM, Nāga Hills, type † ♀ in Coll. Elwes. *Exp.* 24–28 millim.

201. *Poliosia nigrifrons*, n. sp. (Plate XX. fig. 24.)

♂. Grey-white; palpi and frons deep black; legs tinged with fuscous. Fore wing with the basal half of costal edge black.

Hab. R. NIGER, Sapelé (*P. W. Sampson*), 2 ♂, type. *Exp.* 18 millim.

*202. *Poliosia fragilis*. (Plate XXI. fig. 1.)

Brunia fragilis, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1070 (1890); Kirby, Cat. Het. p. 333.

♂. Pale ochreous; fore and mid legs tinged with fuscous. Hind wing pale yellow.

Hab. QUEENSLAND, Brisbane (*Lucas*), in Coll. Meyrick. *Exp.* 14 millim.

Genus PHÆOPHLEBOSIA, nov.

Type, *P. furcifera*.

Proboscis fully developed; palpi porrect, hardly reaching as far as frons, which is clothed with rough hair; antennæ of male with bristles and cilia; tibiæ with the spurs moderate. Fore wing with vein 2 from near angle of cell, oblique; 3, 4 on a long stalk; 5 absent; 6, 7, 8, 9 stalked; 7 from beyond 9; 10 from cell; 11 anastomosing with 12. Hind wing with vein 2 from near angle of cell; 3, 4 coincident or on a very long stalk; 6, 7 coincident; 8 from near end of cell.

203. *Phæophlebosia furcifera*.

Setina furcifera, Wlk. ii. 520 (1854); Kirby, Cat. Het. p. 340.

Setina trifurcata, Wlk. xxxi. 237 (1864).

Orange-yellow; palpi at tips, antennæ, vertex of head, and a stripe on tegulæ and thorax black; legs striped with fuscous. Fore wing with rather broad black streaks on the veins. Hind wing with veins 2 to 7 more or less streaked with fuscous towards extremity.

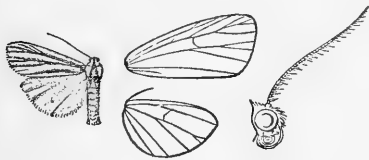


Fig. 50.

Phæophlebosia furcifera, ♂. 1.

Hab. TASMANIA, 2 ♂ type and type *trifurcata*. *Exp.* 26–28 millim.

Genus CHRYSO SCOTA, nov.

Type, *C. auranticeps*.

Proboscis fully developed; palpi obliquely upturned, reaching just beyond frons, the 2nd joint fringed with hair, the 3rd naked; frons rounded; antennæ with bristles and cilia; tibiæ with the spurs moderate; fore femora greatly dilated. Fore wing long and narrow, the costa arched towards apex, termen short; vein 2 from middle of cell, curved at base; 3, 4 coincident, 5 absent; 6 from below angle of cell; 7, 8, 9 stalked, 7 from beyond 9; 10 from cell; 11 anastomosing with 12. Hind wing with veins 3, 4 strongly stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

- A. Fore wing with orange patches *vagivitta*.
 B. Fore wing uniform black-brown *auranticeps*.

204. *Chrysoscota vagivitta*.

Lithosia vagivitta, Wlk. xxxv. 1884 (1866); Swinh. Cat. Het. Mus. Oxon. p. 127, pl. iii. f. 14; Kirby, Cat. Het. p. 332.

Black-brown; head, tegulæ, and base of patagia orange; palpi at tips, antennæ, and patches on frons and vertex of head black; legs orange and fuscous; abdomen with the anal tuft and ventral surface



Fig. 51.—*Chrysoscota vagivitta*, ♂. †.

orange. Fore wing shot with purple; a wedge-shaped orange patch in and below cell from base to before middle; an elliptical spot in end of cell, with an oblique spot below its extremity; a short post-medial streak below costa.

Hab. MYSOE (Wallace), 1 ♂ type; CERAM; S.W. NEW GUINEA, Kapaur (*Doherty*), 3 ♂, 2 ♀. *Exp.* 22 millim.

205. *Chrysoscota auranticeps*, n. sp. (Plate XXI. fig. 2.)

Head orange; palpi at tips and antennæ brown; tegulæ and base of patagia orange; thorax and abdomen black-brown, with slight purple gloss, the greater part of legs, extremity and ventral surface of abdomen orange. Fore wing black-brown with a purplish gloss; an orange streak at base of costa. Hind wing black-brown.

Hab. N. GUINEA, Fergusson I., 1 ♂, 1 ♀ (*Meek*), type. *Exp.*, ♂ 26, ♀ 30 millim.

Genus NISHADA.

- | | |
|---|---------------------|
| | Type. |
| <i>Nishada</i> , Moore, P. Z. S. 1878, p. 23 | <i>flabrifera</i> . |
| <i>Petalopleura</i> , Meyr. Trans. Ent. Soc. 1889, p. 458 | <i>impervia</i> . |

Proboscis fully developed; palpi porrect, reaching just beyond frons, the 2nd joint fringed with hair below; frons rounded; antennæ of male with long cilia and bristles, the shaft usually thickened with scales above towards base; tibiæ with the spurs short; abdomen with slight lateral tufts on 1st segment, the 2nd segment almost bare of scales above in male. Fore wing rather short and broad, the costa highly arched; vein 2 oblique from well before angle of cell; 3, 4 stalked; 5 absent; 6 from or from below upper angle; 7 from 8 after 9; 10 from cell; 11 anastomosing with 12; male with a large patch of naked ridged membrane on inner area, the inner margin fringed with hair. Hind wing of male usually with costal fold fringed with large scales from near base to beyond middle; vein 2 from close to angle of cell and closely approximated to 3, 4, which are coincident; 5 absent; 6, 7 coincident and strongly downcurved; 8 from middle of cell; female usually with vein 2 from long before angle of cell; 3, 4 and 6, 7 strongly stalked.

SECT. I. Hind wing of female with vein 2 from angle of cell; 3, 4 coincident.

206. *Nishada niveola*, n. sp. (Plate XXI. fig. 3.)

♀. Pure white, uniform throughout.

Hab. S.W. NEW GUINEA, Kapaur (*Doherty*), 1 ♀ type. *Exp.* 22 millim.

SECT. II. Hind wing of female with vein 2 from before angle of cell.

A, (*Petalopleura*). Hind wing of female with veins 3, 4 coincident.

a. Wings black-brown, with orange patches *syntomoides*.

b. Wings uniform ochreous *impervia*.

207. *Nishada syntomoides*.

Lithosia syntomoides, Wlk. Journ. Linn. Soc., Zool. vi. p. 106 (1862); Kirby, Cat. Het. p. 300.

Eutane brevis, Swinh. Cat. Het. Mus. Oxon. p. 126, pl. iii. f. 13 (1892).

♂. Black-brown; frons, vertex of head, edges of tegulæ and patagia, and spots on thorax orange; legs orange and brown; abdomen with the anal tuft mixed with orange, the ventral surface with orange bands. Fore wing with orange spot at base of costa; a streak below antemedial part of costa; a streak below median nervure from near base to



Fig. 52.—*Nishada syntomoides*, ♂. 1.

near termen narrowing at middle; an elliptical spot in end of cell; slight streaks above veins 7 and 10 and a more prominent one above 9; a bifid spot between veins 4 and 7; a streak on middle of inner margin. Hind wing with the basal half orange; the inner and terminal areas black-brown.

♀. Fore wing with subterminal spot above vein 2 and sometimes a point above 3. Hind wing with orange fasciæ on costal area and below cell, widely separated at extremity.

Hab. SUMATRA; BORNEO, Sandakan (*Pryer*), 1 ♂, Sarawak (*Wallace*), 1 ♂ type of both names in Mus. Oxon., Pulo Laut (*Doherty*), 1 ♀. *Exp.* 26 millim.

208. *Nishada impervia*. (Plate XXI. fig. 4.)

Lithosia impervia, Wlk. xxxi. 230 (1864); Kirby, Cat. Het. p. 329.

Petalopleura phaeocephala, Meyr. Trans. Ent. Soc. 1889, p. 459; Kirby, Cat. Het. p. 341.

♀. Head and thorax orange-yellow; antennæ blackish; abdomen grey, yellow towards extremity; pectus and legs tinged with fuscous. Fore wing orange-yellow; the termen on underside very slightly tinged with fuscous. Hind wing pale yellow.

♂. Head, tegulæ, and base of patagia black. Fore wing with the terminal area tinged with fuscous on underside from apex to vein 2.

Hab. CERAM (Wallace), 1 ♀ type: NEW GUINEA, Port Moresby, 1 ♂, 1 ♀ type + *pharoccephala* in Coll. Meyrick, Kapaur (Doherty), 4 ♂. *Exp.* 24 millim.

B. (*Nishada*). Hind wing of female with veins 3, 4 stalked.

a. Antennæ of male with the shaft thickened with scales towards base.

a¹. Fore wing with black terminal band on upperside.

a². Hind wing with the terminal half fuscous *marginalis*.

b². Hind wing wholly yellow *tula*.

b¹. Fore wing with more or less terminal black suffusion on underside.

a². Fore wing brownish yellow irrorated with brown . *nodicornis*.

b². Fore wing clear orange-yellow *rotundipennis*.

c¹. Fore wing without black on terminal area *flabrifera*.

209. *Nishada marginalis*.

Cyrtochila marginalis, Feld. Reis. Nov. pl. 139. f. 14 (1875).

♂. Head black; antennæ yellow, except towards base; thorax orange; pectus and legs black; abdomen fuscous, the extremity orange. Fore wing orange, with broad black terminal band, widening to costa and angled inwards below vein 2. Hind wing fuscous black, pale and semihyaline towards base; the inner area yellowish. Antennæ with the ridge of scales angled above near base.

Hab. CELEBES (Doherty), 1 ♂. *Exp.* 30 millim.

*210. *Nishada tula*. (Plate XXI. fig. 5.)

Nishada tula, Swinh. Cat. Het. Mus. Oxon. ii. ined.

♂. Head and tegulæ black; thorax orange-yellow; antennæ with the terminal half yellow; abdomen tinged with fuscous; legs fuscous. Fore wing orange-yellow, with terminal black band expanding towards costa, narrowing to a point at tornus, and slightly dentate in submedian fold. Hind wing yellower; the cilia tinged with fuscous towards apex.

Hab. SULA (Wallace), 1 ♂ type† in Mus. Oxon. *Exp.* 28 millim.

211. *Nishada nodicornis*.

Lithosia nodicornis, Wlk. Journ. Linn. Soc., Zool. vi. p. 104; Swinh. Cat. Het. Mus. Oxon. p. 122; Kirby, Cat. Het. p. 321.

Lithosia chilomorpha, Snell. Tijds. v. Ent. xx. p. 67, pl. 5. f. 1, a-d (1877).

♂. Head blackish; thorax yellow-brown; abdomen yellow, greyish towards base. Fore wing yellow-brown, more or less irrorated with brown; the underside with fuscous patch on termen from apex to above vein 2. Hind wing pale yellow, with the fringes of hair on inner area orange.

♀. Head yellow.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂, 1 ♀. *Exp.* 23–34 millim.
Type † in Mus. Oxon.

*212. *Nishada rotundipennis*. (Plate XXI. fig. 6.)

Lithosia rotundipennis, Wlk. Journ. Linn. Soc., Zool. vi. p. 104 (1862);
Swinh. Cat. Het. Mus. Oxon. p. 123; Kirby, Cat. Het. p. 321.

♀. Orange-yellow. Fore wing with black suffusion on under-
side of terminal area from apex to vein 2.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♀, type † in Mus. Oxon.
Exp. 30 millim.

213. *Nishada flabrifera*.

Nishada flabrifera, Moore, P. Z. S. 1878, p. 23; Hmps. Moths Ind. ii.
p. 88; Kirby, Cat. Het. p. 321.

♂. Head blackish; thorax yellow-brown; abdomen greyish,
the 2nd segment dark, the extremity orange. Fore wing
brownish yellow, with a dif-
fused tinge of purplish on
inner area before middle.
Hind wing pale yellow.



Fig. 53.—*Nishada flabrifera*, ♂. 1.
(From Moths Ind. vol. ii.)

♀ usually more orange;
head orange.

Hab. CALCUTTA, 1 ♂, 1 ♀,
Moore Coll., type; NILGIRIS (*Hampson*), 1 ♀; TRAVANCORE (*Fergus-
son*), 1 ♂; CEYLON (*Green*), 1 ♂; TENASSERIM, Dawnat Hills (*De
Nicéville*), 1 ♀. *Exp.* 24–34 millim.

b. Antennæ of male with the shaft not thickened with
scales. Hind wing with a large fold on costa
fringed with long hair; a fringe of long hair below
the cell from near base to near termen on under-
side; vein 2 from well before angle of cell.

a¹. Fore wing uniform ochreous *sambara*.

b¹. Fore wing black-brown, with irregular costal
fascia *xantholoma* (♀).

214. *Nishada sambara*?

Lithosia sambara, Moore, Lep. E. I. Co. p. 304 (1859); Kirby, Cat. Het.
p. 331.

Lithosia intacta, Wlk. Journ. Linn. Soc., Zool. vi. p. 103 (1862); Swinh.
Cat. Het. Mus. Oxon. p. 122; Kirby, Cat. Het. p. 329.

Lithosia chryseola, Snell. Tijds. v. Ent. xxii. p. 83, pl. 7. f. 5 (1879); Kirby,
Cat. Het. p. 331.

Orange-yellow, almost uniform throughout. Fore wing with
veins 7, 8, 9 stalked; 6 from angle of cell; 10 from cell; 11
anastomosing with 12. Hind wing with veins 3, 4 stalked almost
to termen or coincident in male; 6, 7 often coincident in male.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂, 1 ♀; JAVA (*Horsfield*), 1 ♀ type; SANGIR (*Doherty*), 2 ♂, 1 ♀; BALI (*Doherty*), 1 ♂, 1 ♀.



Fig. 54.—*Nishada sambara*, ♂. }.

Exp., ♂ 36, ♀ 44 millim. Type † *intacta* in Mus. Oxon.; type † *chrysocola* in Coll. Snellen.

*215. *Nishada xantholoma*.

Lithosia xantholoma, Snell. Tijds. v. Ent. xxii. p. 84, pl. 7. f. 6 (1879); Kirby, Cat. Het. p. 332.

♀. Black-brown; head, tegulæ, base of patagia, the greater part of legs, and ventral surface of abdomen orange. Fore wing with orange fascia on costa, broad to middle of cell, then narrowing somewhat suddenly and just before apex contracting to a narrow streak; cilia of both wings orange. Hind wing with veins 3, 4 coincident.

Hab. CELEBES, Makassar, type † ♀ in Coll. Snellen. *Exp.* 34 millim.

Genus **GAMPOLA**.

Gampola, Moore, P. Z. S. 1878, p. 26 *Type.*
fasciata.

Proboscis fully developed; palpi obliquely porrect, reaching just beyond the frons and fringed with hair below; antennæ of male with bristles and cilia; patagia fringed with long hair in male; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather short and broad in male, more elongate in female; vein 2 from just beyond middle of cell, down-curved beyond middle in male; 3 from before angle; 5 absent; the discocellulars very short; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12; a fringe of rough hair on basal part of costa, the inner margin distorted and fringed with hair towards tornus, the apex bent downwards; female with veins 3, 4 on a long stalk; the discocellulars longer. Hind wing of male with vein 2 from middle of cell; 3 from before angle; 4 distorted; the apical area distorted, the upper angle of cell produced and veins 6, 7 very short; 8 from middle of cell; female with veins 3, 4 coincident; 6, 7 stalked.

216. *Gampola fasciata*.

Gampola fasciata, Moore, P. Z. S. 1878, p. 27, pl. ii. f. 18; id. Lep. Ceyl. ii. p. 58, pl. 102. ff. 4, 4 a; Hampson. Moths Ind. ii. p. 89; Kirby, Cat. Het. p. 320.

♂. Grey-brown. Fore wing with curved diffused fuscous shade

from middle of outer margin to lower angle of cell, and thence to middle of inner margin; a dark point on termen above tornus; Hind wing paler.



Fig. 55.—*Gampola fasciata*, ♂. 1.
(From Moths Ind. vol. ii.)

Hab. CEYLON, Moore Coll., type (*Green, Pole*). *Exp.* 26–32 millim.

Genus LEXIS.

Type.

Lexis, Wllgrn. Vet.-Akad. Handl. (2), 5 (4) p. 41 (1835) *bipunctigera*.
Tigrioides, Butl. Trans. Ent. Soc. 1877, p. 359 *alternata*.

Proboscis fully developed; palpi porrect; antennæ of male usually with bristles and cilia; tibiæ with the spurs short; abdomen clothed with rough hair. Fore wing usually long and narrow, the costa arched towards apex, the termen short; vein 2 from middle of cell, curved near base; 3, 4 on a long stalk; 5 absent; 6 stalked with 7, 8, 9, or from or from below angle of cell; 7 from beyond 9; 11 anastomosing with 12. Hind wing with vein 2 from long before angle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Antennæ of male bipectinate.

217. *Lexis sabulosalis*.

Selca sabulosalis, Wlk. xxxiv. 1219 (1865).

Lithosia brevipennis, Snell. in Veth's Midden-Sumatra, Lep. p. 36 (1880); Kirby, Cat. Het. p. 317.

Dull brownish ochreous; fore wing sometimes mottled with slightly darker scales and with discoidal point; hind wing paler. Fore wing rather short and broad; veins 6, 7, 8, 9 stalked.



Fig. 56.—*Lexis sabulosalis*, ♂. 1.
(Wallace), 1 ♂ type. *Exp.* 22 millim.

Hab. BURMA, Rangoon (*Scott*), 3 ♂, 2 ♀: SUMATRA, type † *brevipennis* ♂ in Mus. Leyden; BORNEO, Sarawak

SECT. II. Antennæ of male with bristles and cilia.

A. Palpi reaching just beyond frons.

a. Fore coxæ of male with thick tufts of black hair.

218. *Lexis leucanioides*.

Lithosia leucanioides, Wlk. Journ. Linn. Soc., Zool. vi. p. 103 (1862); Swinhoe, Cat. Het. Mus. Oxon, p. 124, pl. iii. f. 7; Kirby, Cat. Het. p. 325.

Head and tegulae dull orange-yellow; palpi, frons, and antennæ blackish; thorax yellowish, with black spots on patagia, meso- and metathorax; abdomen orange, greyish towards base. Fore wing yellowish, with diffused black streaks on all the veins except the costal and subcostal nervures. Hind wing pale yellow.



Fig. 57.—*Lexis leucanioides*, ♂. 1.

Hab. TENASSERIM, Dawnat Hills (*De Nicéville*), 1 ♂; PENANG, (*Flower*), 1 ♂; SINGAPORE (*Ridley*), 1 ♂; BORNEO, Sarawak (*Wallace*), type † ♀ in Mus. Oxon. *Exp.*, ♂ 32, ♀ 40 millim.

b. Fore coxæ of male without tufts of hair; fore wing with a slight ridge of scales in base of cell and furrow below the cell.

*a*¹. Fore wing without black spot beyond the cell *puncticollis*.
*b*¹. Fore wing with black spot beyond the cell *euchana*.

219. *Lexis puncticollis*.

Lithosia puncticollis, Butl. Trans. Ent. Soc. 1877, p. 353; Kirby, Cat. Het. p. 329.

♂. Yellowish white; palpi, frons, tibiae, and tarsi blackish; tegulae, patagia, and metathorax with blackish spots; abdomen

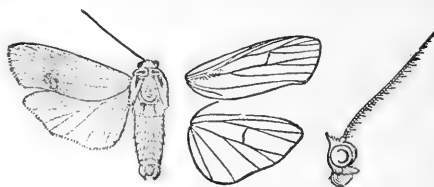


Fig. 58.—*Lexis puncticollis*, ♂. 1.

orange, grey towards base. Fore wing with bifid fuscous post-medial patch from vein 3 to inner margin. Hind wing with the apical area and termen yellower.

♀ rather yellower, with the dark patch on fore wing larger.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ type, Moore Coll., 1 ♀. *Exp.*, ♂ 40, ♀ 50 millim.

220. *Lexis euchana*. (Plate XXI. fig. 13.)

Petosia euchana, Swinh. A. M. N. H. (6) xii. p. 216 (1893); Hmps. Moths Ind. ii. p. 84.

Petosia tetrasema, Meyr. Trans. Ent. Soc. 1894, p. 2.

♀. Yellowish white; palpi at tips, antennæ, and greater part of legs black; patagia and metathorax with black patches; abdomen orange, greyish towards base. Fore wing with round black spot beyond discocellulars and irregular spot on vein 2. Hind wing orange-yellow. Underside orange-yellow, with some fuscous suffusion in cell.

Hab. BURMA, Shán States, Koni, 1 ♀, type of both descriptions. *Exp.* 52 millim.

B. Palpi not reaching as far as frons; fore coxæ of male not tufted with hair.

a. Fore wing with black lines *alterna*.

b. Fore wing without black lines.

a¹. Fore wing with postmedial black spots on discocellulars and in submedian fold *bipunctigera*.

b¹. Fore wing without black spots.

a². Fore wing fuscous below, the marginal areas orange.

a³. Fore wing fuscous with orange costal fascia.

a⁴. Head yellow *immaculata*.

a⁴. Head fuscous *bicolor*.

b³. Fore wing uniform orange-yellow *nitens*.

b². Fore wing uniform orange-yellow below *fulvcola*.

c². Fore wing uniform fuscous-brown *phæola*.

221. *Lexis alterna*.

Setina alterna, Wlk. ii. 520 (1854); Kirby, Cat. Het. p. 340.

Lithosia histrionica, H.-S. Aussereur, Schmelt. f. 440 (1855); Kirby, Cat. Het. p. 340.

Lithosia transversa, Wlk. xxxi. 229 (1864); Kirby, Cat. Het. p. 340.

Orange-yellow; palpi at tips and antennæ blackish; tegulæ with blackish band; patagia and thorax mostly black; abdomen orange, dorsally greyish, often tinged with black, and with ventral black bands. Fore wing yellowish white to orange-yellow; a black fascia on basal half of costa, sometimes with short separate streak below it at base; the antemedial line very irregular, bent outwards in cell and interrupted at median nervure; an irregularly dentate postmedial line angled outwards at vein 6 and inwards on median nervure; a diffused black terminal band more or less expanding at middle. Hind wing with terminal black band expanding very widely on apical area, narrowing to tornus and sometimes angled inwards on vein 1.

Ab. 1. *transversa*. Hind wing with the terminal band obsolete except some diffused black on apical area.

Hab. AUSTRALIA, 1 ♂ type, 2 ♂ (*Hunter*); N. S. WALES, Moreton Bay (*Diggles*), 2 ♀, Sydney (*Raynor*, *Mathew*), 1 ♂, 1 ♀; VICTORIA, Melbourne, 1 ♀; S. AUSTRALIA (*Bakewell*), 1 ♀, type *transversa*. *Exp.* 30–36 millim.

222. *Lexis bipunctigera*.

Lithosia bipunctigera, Wlgrn. Wien. Ent. Mon. iv. p. 45 (1860); Kirby, Cat. Het. p. 359.

Setina quadrinotata, Wlk. xxxi. 237 (1864).



Fig. 59.—*Lexis bipunctigera*, ♂. 1.

Orange-yellow; palpi black at tips; end of femora and the greater part of tibiæ and tarsi black. Fore wing with obliquely placed black spots in end of cell and in submedian fold. Hind wing yellower.

In the male vein 6 of fore wing is stalked with 7, 8, 9; 10 free.

Hab. BR. E. AFRICA, Maungu Inkubwa (*Betton*), 1 ♀; NATAL (*Gueinzus*), 1 ♂. *Exp.* 30 millim.

223. *Lexis immaculata*. (Plate XXI. fig. 8.)

Katha immaculata, Butl. P. Z. S. 1880, p. 671; Kirby, Cat. Het. p. 329.

Head orange-yellow; thorax and abdomen fuscous; tegulæ and patagia orange in front; extremity of abdomen orange. Fore wing fuscous grey, a short streak on base of inner margin and the costal area orange. Hind wing pale orange-yellow. Underside of fore wing suffused with fuscous, except marginal areas.

Fore wing with vein 6 from or from below angle of cell.

Hab. FORMOSA (*Hobson*), 1 ♀ type; CHUSAN I. (*J. J. Walker*), 1 ♂; SINGAPORE (*Ridley*), 1 ♂; BALI (*Doherty*), 1 ♂, 1 ♀. *Exp.* 22 millim.

224. *Lexis bicolor*.

Lithosia bicolor, Grote, Proc. Ent. Soc. Philad. iii. p. 74 (1864).

Lithosia argillacea, Pack. Proc. Ent. Soc. Philad. iii. p. 98 (1864); Hayden's Rep. U.S. Survey, 1873, Moths, p. 559, f. 15; Stretch, Zyg. & Bomb. N. Am. p. 170, pl. 7. f. 13; Kirby, Cat. Het. p. 325.

♂. Fuscous; tegulæ and anal tuft yellow. Fore wing with yellow costal fascia attenuate to a point before apex.

Hab. CANADA; U.S.A., 1 ♂, Grote Coll.; COLORADO, 5000 ft. *Exp.* 30 millim.

225. *Lexis nitens*. (Plate XXI. fig. 9.)

Lithosia nitens, Wlk. xxxi. 231 (1864); Kirby, Cat. Het. p. 334.

Lithosia remota, Wlk. Char. Lep. Het. p. 9 (1869).

Lithosia unicolor, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1071 (1890); Kirby, Cat. Het. p. 326.

♂. Uniform orange-yellow; palpi at sides and fore tibiæ and tarsi tinged with fuscous. Fore wing with the underside suffused with fuscous except marginal areas.

Fore wing with vein 6 shortly stalked with 7, 8, 9.

Hab. QUEENSLAND, Moreton Bay (*Diggles*), 1 ♂ type; Brisbane. *Exp.* 26 millim.

226. *Lexis fulveola*, n. sp. (Plate XXI. fig. 10.)

Fulvous orange. Hind wing pale yellow.

Fore wing with vein 6 very shortly stalked with 7, 8, 9.

Hab. SIKHIM, 2600 ft. (*Pilcher*), 2 ♂; CALCUTTA, Barrackpore, Moore Coll., 1 ♂, 1 ♀ type. *Exp.* 22 millim.

227. *Lexis phæola*, n. sp. (Plate XXI. fig. 7.)

♀. Uniform fuscous brown. Hind wing paler.

Hab. BOMBAY, 1 ♀, Moore Coll.; CEYLON (*Green*), 1 ♀ type. *Exp.* 26 millim.

Genus **PUSIOLA**.

Pusiola, Wllgrn. Wien. Ent. Mon. vii. p. 146 (1863) *Type.* *flavicosta*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of female with bristles and cilia; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow, the termen short; vein 2 from beyond middle of cell, straight; 3, 4 on a long stalk; 5 absent; 6, 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident or stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Hind wing with veins 3, 4 coincident.

228. *Pusiola nana*.

Lithosia nana, Wlk. ii. 507 (1854); Meyr. P. Linn. Soc. N.S.W. (2) i. p. 698 (1886); Kirby, Cat. Het. p. 341.



Fig. 60.—*Pusiola nana*, ♀. 1.

Hab. QUEENSLAND, Moreton Bay, type ♀; N. S. WALES, Sydney, 3 ♀, Raynor Coll. *Exp.* 26 millim.

♀. Head, thorax, and abdomen fuscous grey; frons and shoulders whitish; anal tuft yellow. Fore wing fuscous brown, with white costal fascia, terminating in a point long before apex. Hind wing orange-yellow.

SECT. II. Hind wing with veins 3, 4 stalked.

*229. *Pusiola flavicosta*.

Lithosia flavicosta, Wllgrn. Wien. Ent. Mon. iv. p. 45 (1860); Kirby, Cat. Het. p. 326.



Fig. 61.—*Pusiola flavicosta*, ♂. 2.

♂. Dark brown; tarsi yellowish. Fore wing with the costal edge ochreous yellow.

Hab. CAPE COLONY, type ♂ in Mus. Stockholm. *Exp.* 20 millim.

Genus **PHRYGANOPSIS.**

Type.

Phryganopsis, Feld. Reis. Nov. p. 8 (1874), non descr. *asperatella*.

Proboscis aborted, minute or well developed; palpi short, porrect, not reaching beyond frons; antennæ of male serrate and ciliated, or with cilia and bristles; tibiæ with the spurs moderate; abdomen clothed with long hair. Fore wing short and rather broad, the costa arched towards apex; vein 2 from towards angle of cell, oblique; 3, 4 strongly stalked; 5 absent; 6 from before angle of cell or stalked with 7, 8, 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from before angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

A. Fore wing with postmedial black spot on costa.

a. Fore wing with the costal spot large *costimacula*.b. Fore wing with the costal spot small..... *asperatella*.

B. Fore wing without costal spot.

a. Colour orange-yellow *cinerella*.b. Colour grey-brown *chota*.**230. *Phryganopsis costimacula*.** (Plate XXI. fig. 14.)*Paidia costimacula*, Mab. Bull. Soc. Zool. Fr. iii. p. 87 (1878); Kirby, Cat. Het. p. 364.*Sozusa decipiens*, Holl. Psyche, vi. p. 411 (1893).

♀. Orange-yellow. Fore wing with large postmedial black spot on costa and small spot in submedian fold.

♂. Thorax and fore wing browner; hind wing with the terminal area tinged with brown.

Hab. OLD CALABAR (*Rutherford*), 1 ♀; R. NIGER, Asaba (*Crosse*), 1 ♀; BUTÉ COUNTRY, type † *decipiens* in Coll. Holland; CAMEROONS, Adamawa; CONGO, type † ♀ in Coll. Mabilie. *Exp.* 34 millim.

231. *Phryganopsis asperatella*.*Lithosia asperatella*, Wlk. xxxi. 231 (1864); Kirby, Cat. Het. p. 319.*Phryganopsis sordida*, Feld. Reis. Nov. pl. 106. f. 30 (1874); Kirby, Cat. Het. p. 319.

♂. Yellow-brown. Fore wing thickly irrorated with fuscous; a postmedial black spot on costa and another in submedian fold. Hind wing pale brownish yellow; antennæ with cilia and bristles.

Fig. 62.—*Phryganopsis asperatella*, ♂. 1.

♀. yellower; the fore wing slightly irrorated with fuscous; some black suffusion at base of inner margin.

Hab. R. NIGER, Akasa (*Lugard*), 1 ♂; CAPE COLONY, 2 ♂ type, Fort Pitt (*Dr. Smith*), 1 ♂, Annshaw (*Miss F. Barrett*), 1 ♂, 1 ♀. *Exp.* 24–36 millim. Type † *sordida* in Coll. Rothschild.

232. *Phryganopsis cinerella*. (Plate XXI. fig. 11.)*Lithosia cinerella*, Willgrn. Wien. Ent. Mon. iv. p. 45 (1860); Kirby, Cat. Het. p. 326.

Pusiola zelleri, Wllgrn. Wien. Ent. Mon. vii. p. 147 (1863); Kirby, Cat. Het. p. 326.

♂. Orange-yellow. Fore wing usually either slightly or strongly irrorated with brown scales, and with a more or less developed discoidal spot. Hind wing sometimes with the termen tinged with brown; antennæ minutely serrate.

♀ paler yellow; fore wing without discoidal point.

Hab. R. NIGER, Sapelé (*F. W. Sampson*), 1 ♀; SIERRA LEONE (*Clements*), 1 ♂; DELAGOA BAY (*Mrs. Monteiro*), 1 ♂; MASHONALAND, Salisbury (*Marshall*), 1 ♀; NATAL (*Gueinzus*), 2 ♂; CAPE COLONY, Annshaw (*Miss Barrett*), 1 ♂. *Exp.* 20 millim. Types † *cinxrella* and *zelleri* in Mus. Stockholm.

233. *Phryganopsis chota*.

Brunia chota, Swinh. P. Z. S. 1885, p. 293, pl. 20. f. 11; Hmps. Moths Ind. ii. p. 81; Kirby, Cat. Het. p. 325.

Uniform grey-brown; antennæ and costal edge of fore wing whitish; antennæ of male ciliated.

Hab. BR. E. AFRICA, Teita (*Jackson*), 1 ♂; BOMBAY, Poona (*Swinhoe*), 2 ♀, type. *Exp.*, ♂ 14, ♀ 18 millim.

Genus RHAGOPHANES.

Type.

Rhagophanes, Zell. Bull. Mosc. xxvi. (2) p. 508 (1853) *tortriciformis*.

Proboscis well developed; palpi porrect, not reaching as far as frons, which is clothed with long hair; antennæ of male with bristles and cilia; patagia fringed with long hair; tibiæ with the spurs moderate; abdomen clothed with rough hair and with long lateral tufts on last segment. Fore wing moderately broad, the costa arched to middle, then nearly straight, the termen obliquely rounded; the cell half the length of wing; vein 2 curved towards base and stalked with 3, 4; 5 absent; 6, 7, 8, 9, 10 stalked; 11 from angle of cell, becoming coincident with 12. Hind wing of male with cleft in termen above vein 4 extending to middle of wing, the inner area folded and clothed with long hair; vein 2 from near angle of cell; 3, 4 stalked; 5 absent; 6, 7 coincident; 8 from middle of cell, which is very short.

234. *Rhagophanes tortriciformis*.

Rhagophanes tortriciformis, Zell. Bull. Mosc. xxvi. (2) p. 511, pl. 4. ff. 7-12 (1853); Kirby, Cat. Het. p. 362.

♂. Pale brown; abdomen with the anal tufts tinged with fuscous, the lateral tufts yellowish. Fore wing irrorated with black scales; a black spot on costa before middle; a medial spot on vein 1 and an oblique striga below vein 2 near its origin; a prominent series of terminal black spots extending round the apex. Hind wing more ochreous in tone.



Fig. 63.

Rhagophanes tortriciformis, ♂. †.

Hab. JAVA, 1 ♂, Zeller Coll., type. *Exp.* 20 millim.

Genus **MITHUNA**.

Mithuna, Moore, P. Z. S. 1878, p. 21 Type. *quadriplaga*.

Proboscis fully developed; palpi obliquely upturned, not reaching vertex of head, and fringed with hair in front; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather short and broad, the costa arched; vein 2 from middle of cell; 3, 4 stalked; 5 absent; 7, 8, 9, 10 stalked; 11 anastomosing with 12. Hind wing with vein 2 from well before angle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 on a long stalk; 8 from middle of cell.

SECT. I. Fore wing with vein 6 stalked with 7, 8, 9, 10; 10 from before 7; antennæ of male bipectinate.

235. *Mithuna fuscivena*.

Mithuna fuscivena, Hmps. Moths Ind. iv. p. 495 (1896).

Fuscous brown. Fore wing with the veins streaked with fuscous. Hind wing dull ochreous, the costal area tinged with fuscous.



Fig. 64.—*Mithuna fuscivena*, ♂. $\frac{3}{4}$.

Hab. CEYLON (*Pole*), 3 ♂, 4 ♀, type; BORNEO, Pulo Laut (*Doherty*), 1 ♂, 1 ♀. Exp. 16 millim.

SECT. II. Fore wing with vein 6 from long below angle of cell; antennæ of male with bristles and cilia.

A. Fore wing with vein 7 from before 10.

236. *Mithuna quadriplaga*.

Mithuna quadriplaga, Moore, P. Z. S. 1878, p. 21; Hmps. Moths Ind. ii. p. 86; Kirby, Cat. Het. p. 332.

♂. Head and tegulæ orange-yellow; palpi and thorax fuscous brown; antennæ brown; abdomen grey-brown, the anal tufts yellow. Fore wing brown, with some fuscous at base of costa; a fuscous medial spot on costa with traces of a line arising from it strongly excurved from below costa to cell; an indistinct irregular subterminal line most prominent towards costa. Hind wing pale brown.

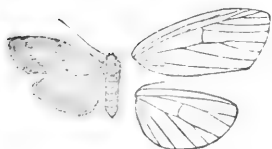


Fig. 65.

Mithuna quadriplaga, ♀. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

♀. Head and tegulæ brown.

Hab. SIKHIM, 3 ♂ (*Dudgeon*, *Pilcher*), 1 ♀, Moore Coll., type BHUTÁN, 2 ♂ (*Dudgeon*). Exp., ♂ 22, ♀ 26 millim.

B. Fore wing with vein 7 from after 10.

237. *Mithuna strigifera*, n. sp.

♀. Grey-brown. Fore wing pale grey, suffused with red-brown except on costal and terminal areas; a postmedial black spot on costa, with obscure line from it acutely angled at vein 6, then retracted to middle of vein 1; a dark streak in cell; three black points on costa towards apex, with an oblique streak from the



Fig. 66.—*Mithuna strigifera*, ♂. †.

last almost to the angle of postmedial line; a terminal series of black points. Hind wing fuscous.

Hab. SIKHIM, 1 ♀ type, Zell. Coll. *Exp.* 28 millim.

Genus **TYLANTHES**.

Tylanthes, Meyr. Trans. Ent. Soc. 1889, p. 459..... Type. *ptochias*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs moderate; abdomen clothed with rough hair, lateral tufts of hair on terminal segment, the claspers and anal tuft large. Fore wing rather broad; male with some rough scales on basal area on underside; a thick tuft of short hair in a fovea below base of vein 2, with a tuft of short hair above it on the broad costal fold which extends to middle of wing; the cell narrow, and the subcostal and median nervures approximated; vein 2 from beyond middle of cell, curved round the fovea; 3, 4 stalked; 5 absent; 6, 7, 8, and 10 stalked, 9 absent; 11 free. Hind wing with costal fold fringed with large scales and with tufts of large scales below it; a very large and thick tuft of hair below middle of costa at end of costal fold; the median nervure giving off a single vein to costa at functional apex, and the remainder of veins from cell absent, obliterated in the costal tufts and fold.

*238. *Tylanthes ptochias*.

Tylanthes ptochias, Meyr. Trans. Ent. Soc. 1889, p. 460; Kirby, Cat. Het. p. 341.



Fig. 67.—*Tylanthes ptochias*, ♂. †.

♂. Yellow-brown; hind wing pale yellow; the tufts of scales in fovea on underside of fore wing and at end of costal fold of hind wing fuscous.

Hab. N. GUINEA, Port Moresby (*Kowald*), 1 ♂, type†

in Coll. Meyrick. *Exp.* 24 millim.

Genus **METEURA**, nov.

Type, *M. cervina*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male with long bristles and cilia; tibiæ with the spurs moderate.

Fore wing narrow; the cell short, the median and subcostal nervures closely approximated towards base; a thick patch of androconia in and below end of cell, and a large patch of blackish scales on disk on underside; vein 2 from towards end of cell; 3, 4 coincident; 5 absent; 6, 7, 8, and 10 stalked, 9 absent; 11 oblique. Hind wing with the whole underside except the base, inner and terminal areas, covered by blackish androconia; the cell open; veins 3, 4 coincident; 5 absent; 6, 7 coincident; 8 curved; the costal area greatly expanded; the apex somewhat excised to vein 6.

*239. *Meteura cervina*.

Scoliacma cervina, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1068 (1890); Kirby, Cat. Het. p. 288.

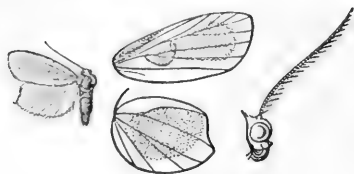


Fig. 68.
Meteura cervina, ♂. †.

♂. Ochreous brown, of a rather silky texture. Hind wing paler, rather yellow; the blackish patches of androconia on underside somewhat showing through on upper-side.

Hab. QUEENSLAND, Brisbane, ♂ in Coll. Turner. (*Exp.* 24 millim.)

Genus **STENAULIS**, nov.

Type, *S. discalis*.

Proboscis fully developed; palpi porrect, not extending beyond frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair, the terminal segments dilated. Fore wing long and narrow, the costa slightly arched; male with the cell very narrow and the discocellulars very short; a groove below the cell, with some long decumbent hair on each side of it towards extremity, and at its extremity near lower end of cell meeting from several directions in a tuft; vein 2 from middle of cell, oblique; 3 from angle, much curved; 6 stalked with 7, 8, 9 and much curved; 10, 11 from a point towards end of cell, free. Hind wing with vein 2 from well before angle; 3, 4 coincident; 5 absent; 6, 7 coincident; 8 from near angle of cell.

240. *Stenaulis discalis*.

Lithosia discalis, Wlk. Journ. Linn. Soc., Zool. vi. p. 108 (1862); Swinh. Cat. Het. Mus. Oxon. p. 119, pl. iii. f. 12; Kirby, Cat. Het. p. 317.



Fig. 69.—*Stenaulis discalis*, ♂. †.

♂. Head, thorax, and fore wing pale reddish brown, the last with the tuft at lower angle of cell rather darker; abdomen and hind wing orange-yellow.

Hab. BORNEO, Sarawak (Wallace), 2 ♂, type † ♂ in Mus. Oxon. *Exp.* 20 millim.

Genus **PARABLAVIA**, nov.

Type, *P. sadima*.

Proboscis aborted, minute; palpi minute; antennæ ciliated; tibiæ with the spurs minute; abdomen rather roughly scaled. Fore wing long and narrow; vein 2 from middle of cell, curved at base; 3, 4 coincident; 5 absent; 6 from below upper angle; 7, 8 stalked; 11 anastomosing with 12. Hind wing with vein 2 from towards end of cell; 3, 4 coincident; 5 absent; 6, 7 shortly stalked; 8 from middle of cell.

SECT. I. Fore wing with vein 9 stalked with 7, 8; 10-free.

241. *Parablavia xanthura*.

Parablavia xanthura, Schaus, J. N. Y. Ent. Soc. vii. p. 215 (1899).

♂. Head, thorax, and abdomen blackish tinged with grey, the back of head, front of tegulæ, and anal tuft orange. Fore wing pale grey-brown with a cupreous tinge; a yellowish-white costal fascia, attenuate to a point before apex, the costal edge black towards base. Hind wing fuscous black.



Fig. 70.—*Parablavia xanthura*, ♂. 1.

Hab. BRAZIL, Castro Paraña (Jones), 2 ♂. *Esp.* 22 millim. Type † in Coll. Schaus.

SECT. II. Fore wing with vein 9 from 10, anastomosing with 8 to form the areole.

- A. Fore wing with the costal edge black towards base *sadima*.
 B. Fore wing with the costal edge not black towards base..... *pallida*.

*242. *Parablavia sadima*.

Lithosia sadima, Schaus, J. N. Y. Ent. Soc. iv. p. 151 (1893).

♂. Pale grey-brown; vertex of head and extremity of abdomen slightly yellowish; legs tinged with fuscous. Fore wing with the costal edge fulvous, blackish towards base; a diffused whitish fascia just below costa. Hind wing yellowish white, more or less strongly tinged with fuscous on costal area and towards termen.



Fig. 71.—*Parablavia sadima*, ♂. 1.

Hab. BRAZIL, Castro Paraña (Jones), 5 ♂, type † in Coll. Schaus. *Esp.* 26-30 millim.

*243. *Parablavia pallida*. (Plate XXI. fig. 12.)*Delpytre pallida*, Möschl. Abh. Senck. Ges. xvi. p. 118 (1890).

♀. Head, thorax, and abdomen white and very pale rufous brown. Fore wing very pale rufous brown, with diffused white costal fascia. Hind wing white, the apical area tinged with brown.

Hab. Porto Rico, type ♀ in Coll. Staudinger. *Exp.* 18 millim.

Genus **CRAMBIDIA**.

Crambidia, Pack. Proc. Ent. Soc. Philad. iii. p. 99 (1864) Type. *pallida*.

Proboscis aborted, minute; palpi porrect, not reaching as far as frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather narrow, the costa arched; vein 2 from middle of cell, curved at base; 3, 4 coincident; 5 absent; 6 from below upper angle; 7, 8, 9 stalked; 10 free, or 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12. Hind wing with vein 2 from well before angle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing without areole.

- A. Colour grey-brown *pallida*.
 B. Colour slate-grey
 a. Fore wing with yellowish costal fascia *lithosioides*.
 b. Fore wing without costal fascia *uniformis*.

244. *Crambidia pallida*.

Crambidia pallida, Pack. Proc. Ent. Soc. Philad. iii. p. 99 (1864); Stretch, Zyg. & Bomb. N. Am. p. 165, pl. 7. f. 16; Kirby, Cat. Het. p. 338.

♂. Uniform grey-brown; hind wing rather paler.



Fig. 72.—*Crambidia pallida*, ♂. 1.

Hab. U.S.A., N. Atlantic States, 1 ♂, Zell. Coll. *Exp.* 28 millim.

*245. *Crambidia lithosioides*. (Plate XXI. fig. 23.)

Crambidia lithosioides, Dyar, J. N. Y. Ent. Soc. vi. p. 33 (1898).

♀. Dark slate-grey; gule yellowish; tegulæ yellow in front. Fore wing with very narrow pale yellow streak on costa from base to near apex. Hind wing paler towards base.

Hab. U.S.A., Texas (*Belfrage*), type ♀ in U.S. Nat. Mus. *Exp.* 21 millim. This species is unknown to me: figured from a drawing from type.

*246. *Crambidia uniformis*. (Plate XXI. fig. 24.)

Crambidia uniformis, Dyar, J. N. Y. Ent. Soc. vi. p. 33 (1898).

♀. Dark slate-grey. Fore wing with the veins streaked with dull ochreous. Abdomen and hind wing slightly paler.

Hab. U.S.A., Washington (*F. C. Pratt*), type ♀ in U.S. Nat. Mus. *Exp.* 19 millim. This species is unknown to me: figured from a drawing from type.

SECT. II. Fore wing with areole.

- A. Fore wing white *casta*.
 B. Fore wing ochreous brown, with whitish costal fascia *scoteola*.

247. *Crambidia casta*.

Lithosia casta, Pack. Guide Study Ins. p. 284, f. 24 (1869); Stretch, Zyg. & Bomb. N. Am. p. 171, pl. 7. f. 15; Kirby, Cat. Het. p. 338.

Lithosia cephalica, Grote & Rob. Trans. Am. Ent. Soc. iii. p. 176 (1870); Stretch, Zyg. & Bomb. N. Am. p. 171, pl. 7. f. 14; Kirby, Cat. Het. p. 338.

Lithosia candida, H. Edw. Proc. Cal. Acad. Sci. v. p. 185 (1874); Kirby, Cat. Het. p. 338.

White with a slight fuscous tinge; legs mostly fuscous; fore wing with the costa black towards base; underside of fore wing and costal area of hind wing fuscous.



Fig. 73.—*Crambidia casta*, ♂. †.

Ab. 1. *cephalica*. Head and anal tuft more or less completely yellow; hind wing often tinged with fuscous.

Ab. 2. Head and thorax strongly tinged with fuscous; fore and hind wings tinged with fuscous.—Colorado.

Hab. VANCOUVER; U.S.A., Texas, Grote Coll. 6 ♂, Colorado, Denver (*Cockerell*), 2 ♂. *Exp.* 26–34 millim.

248. *Crambidia scoteola*, n. sp. (Plate XXI. fig. 25.)

♂. Head and thorax whitish and brown; legs brown and yellow; abdomen fuscous, the anal tuft ochreous. Fore wing brownish-ochreous, with ill-defined whitish costal fascia; the costal edge orange-yellow, black on basal third. Hind wing fuscous; the termen and cilia yellow.

Hab. BOLIVIA, Corvico, 1 ♂, type, Rio Songo (*Garlepp*), ♀ in Coll. Staudinger. *Exp.* 26 millim.

Genus **PHÆOSIA**, nov.Type, *P. lutea*.

Proboscis fully developed; palpi porrect, not reaching beyond frons, which is rounded; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow, the costa arched towards apex, the termen short; vein 2 from middle of cell, curved near base; 3, 4 coincident; 5 absent; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole, 7 from end of areole, 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked; 8 from middle of cell.

249. *Phæosia lutea*.

Lithosia lutea, Druce, Biol. Centr.-Am., Het. i. p. 131 (1885); Kirby, Cat. Het. p. 338.

♂. Head, thorax, and abdomen white tinged with fuscous. Fore wing pale fuscous, whiter towards costa, on which there is a fuscous streak towards base. Hind wing fuscous, the cilia whitish.

Fig. 74.—*Phæosia lutea*, ♂. 1.

Hab. GUATEMALA, S. Geronimo (*Champion*), 2 ♂, type, Godman-Salvin Coll. Exp. 26–30 millim.

Subsp. 1. *intermedia*, Druce, Biol. Centr.-Am., Het. i. p. 131 (1885); Kirby, Cat. Het. p. 338.

Fore wing paler: hind wing white tinged with fuscous.

Hab. MEXICO, Jalapa (*Trujillo*), Cordova (*Rümeli*), type, Vera Cruz (*H. H. Smith*), Godman-Salvin Coll. Exp. 28 millim.

Genus **SOZUSA**.

Type.

Sozusa, Wllgrn. Wien. Ent. Mon. vii. p. 146 (1863) *scutellata*.

Proboscis fully developed; palpi short, porrect, not reaching beyond frons and roughly scaled; antennæ of male with long bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and very narrow, the costa straight, the apex rounded, the termen short, the inner margin arched near base; vein 2 from towards angle of cell, oblique; 3, 4 coincident; 5 absent; 6, 7, 8, 9 stalked; 11 anastomosing with 12 and either stalked with 10 or from cell; male with a fringe of scales on costal nervure below. Hind wing with vein 2 from long before angle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked; 8 from middle of cell; male with an elliptical patch of black androconia below middle of costa.

250. *Sozusa scutellata*.

Lithosia scutellata, Wllgrn. Wien. Ent. Mon. iv. p. 45 (1860); Kirby, Cat. Het. p. 318.

Lithosia doroglavca, Wlk. xxxi. 225 (1864); Kirby, Cat. Het. p. 327.

Lithosia natalica, Möschl. Stett. ent. Zeit. xxxiii. p. 354 (1872); Kirby, Cat. Het. p. 324.

Head orange; thorax bluish leaden-grey, with orange patch on metathorax; pectus and legs orange, fore and mid legs streaked with fuscous; abdomen orange, greyish towards base. Fore wing pale fuscous grey, with a bluish tinge towards base; a short fascia

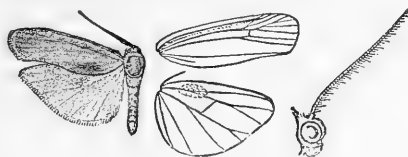


Fig. 75.—*Sozusa scutellata*, ♂. †.

on base of inner margin and a costal fascia orange; cilia orange. Hind wing pale orange-yellow.

Hab. NATAL, Estcourt (*Hutchinson*), 1 ♂, 2 ♀; CAPE COLONY, Transkei (*Miss F. Barrett*), 2 ♂. *Exp.* 32–36 millim. Type † in Mus. Stockholm.

Genus **MACROSIA**, nov.

Type, *M. fumeola*.

Proboscis fully developed; palpi porrect, not reaching as far as frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow, the apex rounded; vein 2 from middle of cell, curved at base; 3, 4 coincident; 5 absent; 9 from 10, anastomosing with 8 to form the areole; 6 and 7 from areole; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked; 8 from middle of cell.

251. *Macrosia fumeola*.

Lithosia fumeola, Wlk. ii. 508 (1854); Kirby, Cat. Het. p. 327.

♂. Head orange-yellow; thorax grey, the tegulæ in front, shoulders, and a patch on metathorax orange; pectus and legs orange, the tibiæ slightly striped with fuscous; abdomen orange-

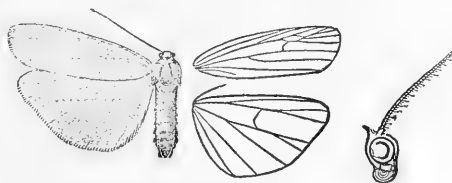


Fig. 76.—*Macrosia fumeola*, ♂. †.

yellow. Fore wing brownish yellow, slightly suffused with grey towards base and on inner area; the edges of costa and inner margin orange; the costa black near base. Hind wing yellow.

♀. Fore wing grey, with the costal and inner margins narrowly yellow.

Hab. GERMAN E. AFRICA, Dar-es-salaam; CAPE COLONY, type ♀, Knysna 2 ♀ (*Trimen*), Annshaw (*Miss Barrett*), 1 ♂. *Exp.* 42 millim.

Genus CTENOSIA, nov.

Type, *C. psectriphora*.

Proboscis fully developed: palpi porrect, not reaching beyond the frons; antennæ of male bipectinate, with short branches ending in a bristle; tibiæ with the spurs moderate: abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from towards end of cell, oblique; 3, 4 on a long stalk; 6, 7, 8, and 10 stalked; 9 absent; 10 from beyond 7; 11 free. Hind wing with vein 2 from towards end of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

*252. *Ctenosia psectriphora*.

Pusiola psectriphora, Distant, A. M. N. H. (7) iii. p. 462 (1899).



Fig. 77.—*Ctenosia psectriphora*, ♂. 1.

♂. Orange-yellow: abdomen greyish towards base; palpi at tips and fore tibiæ tinged with fuscous. Fore wing with the inner area very slightly tinged with fuscous. Hind wing rather paler orange-yellow.

Hab. TRANSVAAL, Pretoria (*Distant*), ♂ type† in Coll. Distant. Exp. 36 millim.

Genus ILEMA.

	Type.
<i>Eilema</i> , Hübn. Verz. p. 165 (1827).....	<i>caniola</i> .
<i>Systropha</i> , Hübn. Verz. p. 165 (1827)	<i>sororcula</i> .
<i>Teulisia</i> , Wlk. Journ. Linn. Soc., Zool. vi. p. 109 (1862).	<i>plagiata</i> .
<i>Tegulata</i> , Wlk. Journ. Linn. Soc., Zool. vi. p. 110 (1862) .	<i>tumida</i> .
<i>Corcurea</i> , Wlk. Journ. Linn. Soc., Zool. vi. p. 110 (1862)...	<i>chiloides</i> .
<i>Manulea</i> , Wlgrn. Wien. Ent. Mon. vii. p. 145 (1863) ...	<i>gracilipennis</i>
<i>Cossa</i> , Wlk. xxxi. 233 (1864)	<i>basigera</i> .
<i>Ityca</i> , Wlk. xxxv. 1889 (1866).....	<i>chiloides</i> .
<i>Diastrophia</i> , Feld. Reis. Nov. p. 4 (1874)	<i>chiloides</i> .
<i>Eucreega</i> , Feld. Reis. Nov. pl. 106 (1874), non descr.....	<i>arculifera</i> .
<i>Tarika</i> , Moore, P. Z. S. 1878, p. 14	<i>varana</i> .
<i>Simareca</i> , Moore, P. Z. S. 1878, p. 14	<i>basinota</i> .
<i>Gandhara</i> , Moore, P. Z. S. 1878, p. 15	<i>griseola</i> .
<i>Collita</i> , Moore, P. Z. S. 1878, p. 16	<i>griseola</i> .
<i>Katha</i> , Moore, P. Z. S. 1878, p. 16	<i>depressa</i> .
<i>Capissa</i> , Moore, P. Z. S. 1878, p. 19	<i>vagesa</i> .
<i>Dolgoma</i> , Moore, P. Z. S. 1878, p. 20	<i>reticulata</i> .
<i>Macotasa</i> , Moore, P. Z. S. 1878, p. 24	<i>tortricoides</i> .
<i>Zadadra</i> , Moore, P. Z. S. 1878, p. 25	<i>distorta</i> .
<i>Prabhasa</i> , Moore, P. Z. S. 1878, p. 25	<i>venosa</i> .
<i>Thysanoptya</i> , Hmps. Moths Ind. ii. p. 74 (1894)	<i>tetragona</i> .
<i>Lophoncura</i> , Hmps. Moths Ind. ii. p. 78 (1894)	<i>uniformis</i> .
<i>Edæa</i> , Turner, Trans. Roy. Soc. S. Austr. 1899, p. 10 ...	<i>decreta</i> .

Proboscis fully developed; palpi porrect, hardly reaching beyond the frons, the 2nd joint fringed with hair below; frons rounded; antennæ of male with elia and bristles, rarely serrate or pectinate; tibiæ with the spurs rather short; abdomen clothed with rough hair. Fore wing long and narrow, sometimes shorter, the costa arched towards apex, the termen short; vein 2 from middle of cell, curved towards base; 3, 4 on a long stalk, rarely shortly stalked or from cell

5 absent; 6 from well below upper angle or stalked with 7, 8, 9; 7 rarely from cell in male; 10 from cell, or 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12 or free. Hind wing with vein 2 from long before angle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked, rarely coincident; 8 from middle of cell.

SECT. I. Antennæ of male bipectinate, with short stiff branches.

253. *Ilema bifasciata*, n. sp.

♂. Head, thorax, and abdomen fuscous black; palpi, fringes of tegulæ, and streaks on legs ochreous; abdomen with orange bands on last four segments. Fore wing fuscous, with orange costal fascia narrowing to a point just before apex; a broader fascia in submedian interspace extending to just beyond middle; a slight streak on basal part of inner margin. Hind wing orange, with broad diffused fuscous

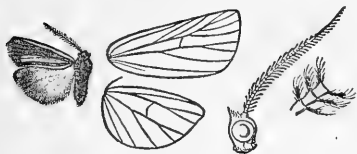


Fig. 78.—*Ilema bifasciata*, ♂. 1.

band on terminal area; some fuscous on inner area.

Fore wing with veins 6, 7, 8, 9 stalked; 10, 11 free.

Hab. CAPE COLONY, 1 ♂ type. *Exp.* 22 millim.

SECT. II. Antennæ of male serrate, with fascicles of long cilia and bristles.

254. *Ilema phæopera*, n. sp.

Orange; frons, antennæ, thorax, and legs tinged with fuscous. Fore wing tinged with fuscous; the costal area yellowish white, narrowing to a point beyond middle. Hind wing with large diffused fuscous patch on apical area extending down to vein 2.



Fig. 79.—*Ilema phæopera*, ♂. 1.

Fore wing with veins 6, 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. DELAGOA BAY (*H. Junod*), 1 ♀; TRANSVAAL, Johannesburg (*Rose*); CAPE COLONY, Annshaw (*Miss F. Barrett*), 1 ♂ type. *Exp.* 30 millim.

SECT. III. Antennæ of male ciliated.

A. Antennæ of male thickened by a ridge of scales above towards base; fore wing with thick fringe of scales in and below cell on underside, a tuft in submedian interspace; hind wing with the costa lobed at middle, the apical part truncate, the inner area clothed with thick fringes of orange hair.

*255. *Ilema fasciculosa*.

Lithosia fasciculosa, Wlk. Journ. Linn. Soc., Zool. vi. p. 105 (1862); Swinh. Cat. Het. Mus. Oxon. p. 123; Kirby, Cat. Het. p. 321.

♂. Head and thorax brownish orange: frons, palpi, antennæ, fore legs, and mid and hind tibiæ and tarsi blackish; abdomen



Fig. 80.—*Ilema fasciculosa*, ♂. 1.

orange. Fore wing brownish orange. Hind wing pale yellow, with the fringes of hair on inner area orange.

Fore wing with veins 3, 4 shortly stalked; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂, type † in Mus. Oxon. *Exp.* 34 millim.

B. Fore wing of male with a fold in cell, and the subcostal and median nervures closely approximated.

a. Fore wing of male with fringe of large scales in cell.

a¹. (*Macotasa*). Fore wing of male with vein 3 bent down and becoming coincident with 2; a bar across end of cell; 6 from middle of discocellulars or lower angle of cell; 7 from below upper-angle; 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12; female with vein 6 from the areole, 7 from beyond it.

256. *Ilema tortricoides*.

Lithosia tortricoides, Wlk. Journ. Linn. Soc., Zool. vi. p. 107 (1862); Hmps. Ill. Het. viii. p. 4, pl. 143. f. 16; id. Moths Ind. ii. p. 84; Kirby, Cat. Het. p. 317.

Teulisna biplagella, Butl. Trans. Ent. Soc. 1877, p. 355; Moore, P. Z. S. 1878, p. 25, pl. ii. f. 14; Kirby, Cat. Het. p. 318.

Pale yellow; thorax and fore legs tinged with fuscous; abdomen grey, the extremity yellow. Fore wing suffused slightly

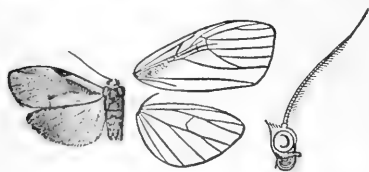


Fig. 81.—*Ilema tortricoides*, ♂. 1.

pale yellow, tinged with fuscous towards apex.

Hab. NILGIRIS (*Hampson*), 1 ♂, 1 ♀; BORNEO, Sarawak (*Wallace*), 3 ♂, type *biplagella*; PULO LAUT (*Doherty*), 1 ♂, 1 ♀; JAVA (*Horsfield*), 2 ♂, Arjuno, 1 ♂; BALI (*Doherty*), 1 ♂. *Exp.* 28–30 millim.

with fuscous, leaving the costal area yellow, the veins slightly streaked with black; a triangular black spot on costa beyond middle; the costa black towards apex; the fringe of scales in cell of male leaden grey. Hind wing

*b*¹. Fore wing of male with vein 3 not becoming coincident with 2.

*a*². Hind wing of male with fringes of scales on basal part of inner area on upperside; the anal tufts very large.

*a*³. Fore wing with the tornus hooked; hind wing of male with a small pouch below base of cell.

*a*⁴ (*Tegulata*). Fore wing with the costa strongly lobed at middle.

*a*⁵. Fore wing of male with round spot at end of cell; female with elongate costal spot; hind wing fuscous..... *tumida*.

*b*¹. Fore wing of male with lunulate spot at end of cell; female with rounded spot on costa; hind wing orange-yellow..... *protuberans*.

*c*¹. Fore wing of male with black point at lower angle of cell nearly joined by an oblique striga from costa *obliquistria*.

257. *Ilema tumida*.

Tegulata tumida, Wlk. Journ. Linn. Soc., Zool. vi. p. 110 (1862); Swinh. Cat. Het. Mus. Oxon. p. 119; Hmps. Moths Ind. ii. p. 86; Kirby, Cat. Het. p. 333.

Tegulata basistriga, Moore, P. Z. S. 1878, p. 22, pl. ii. f. 5; id. Lep. Ceyl. ii. p. 58, pl. 102. f. 3; Kirby, Cat. Het. p. 333.

♂. Greyish brown; frons blackish; abdomen black, greyish towards base. Fore wing with the basal costal area whitish, with elongate black mark on costa before the lobe; the fringe of scales grey, with a round black spot at its extremity; some diffused fuscous on disk and traces of a postmedial line. Hind wing pale yellow, fuscous toward termen; the cilia pale yellow.

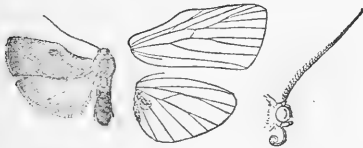


Fig. 82.—*Ilema tumida*, ♂. 1.
(From Moths Ind. vol. ii.)

♀. Fore wing with a black point at lower angle of cell instead of the spot; the inner margin black to beyond middle; hind wing fuscous, pale towards base.

Fore wing with veins 6, 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. SIKHIM; CEYLON (*Green*), 3 ♂, 4 ♀, type † *basistriga* in Coll. Standinger; MALACCA; BORNEO, Sarawak (*Wallace*), type in Mus. Oxon. *Exp.* 24–28 millim.

258. *Ilema protuberans*.

Tegulata protuberans, Moore, P. Z. S. 1878, p. 23, pl. ii. f. 6; Hmps. Moths Ind. ii. p. 87; Kirby, Cat. Het. p. 333.

♂. Greyish brown; abdomen black, greyish towards base. Fore wing with whitish fascia on basal half of costal area, and a black fascia on costa before the lobe; the fringe of scales grey, with a black lunule at its extremity; some fuscous suffusion on disk and traces of a postmedial band. Hind wing pale yellow, the terminal area fuscous; the cilia pale yellow.

♀. Anal tuft orange; fore wing with large rounded black spot on costa before the lobe; a black point at lower angle of cell with indistinct oblique line from it to inner margin; some fuscous suffusion on inner area. Hind wing orange-yellow.

Fore wing with veins 6, 7, 8, 9 stalked in male, 6 from below angle in female; 10 free; 11 anastomosing with 12.

Hab. SIKHIM, 2 ♀; BHUTAN, 1 ♂, 1 ♀ (*Dudgeon*). *Exp.*, ♂ 26, ♀ 34 millim. Type † ♀ in Coll. Standinger.

*259. *Ilema obliquistria*. (Plate XXI. fig. 20.)

Teulisna obliquistria, Hmps. Moths Ind. ii. p. 87 (1894).

♂. Greyish brown; abdomen tinged with fuscous, greyish towards base. Fore wing slightly irrorated with fuscous; the costal area whitish to the lobe, with an elongate fuscous mark on the costa; a black point at lower angle of cell nearly joined by an oblique striga from costa. Hind wing uniform brownish ochreous.

Hab. BURMA, Momeit (*Doherty*), type † in Coll. Elwes. *Exp.* 28 millim.

- b*⁴. (*Teulisna*). Fore wing without costal swelling; hind wing of male with tuft of hair on middle of costa on upperside.
- a*⁵. Fore wing with large quadrate medial black patch.
- a*⁶. Fore wing without black postmedial spot on costa *plagiata*.
- b*⁶. Fore wing with black postmedial spot on costa.
- a*⁷. Fore wing with the medial patch short and not extending to near base. *uniplaga*.
- b*⁷. Fore wing with the medial patch elongate and extending nearly to base. *semibrunnea*.
- b*⁵. Fore wing without quadrate medial black patch.
- a*⁶. Fore wing with prominent black streak on costa near base *chiloides*.
- b*⁶. Fore wing without black streak on costa near base *bipunctata*.

260. *Ilema plagiata*.

Teulisna plagiata, Wlk. Journ. Linn. Soc., Zool. vi. p. 109 (1862); Swinh. Cat. Het. Mus. Oxon. p. 120, pl. iii. f. 11; Kirby, Cat. Het. p. 317.

Head, tegulae, and base of patagia brownish white, the rest of pata-



Fig. 83.—*Ilema plagiata*, ♂. †.

gia and thorax black; abdomen grey, the terminal half black in male. Fore wing ochreous white; the basal area tinged with fuscous except towards costa; a large quadrate medial black patch extending from inner margin to below costa; a subterminal conjoined series of black patches not reaching costa and narrowing to above inner

margin; a terminal black line and fuscous patch at tornus. Hind wing fuscous, pale towards base, the cilia yellowish.

Fore wing with veins 6, 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. BORNEO, 1 ♂, Sarawak (*Wallace*), 1 ♀, type † ♂ in Mus. Oxon. *Exp.* 28–30 millim.

Subsp. 1. *atratella*, Wlk. xxix. 746 (1864).

Teulisna bertha, Butl. Trans. Ent. Soc. 1877, p. 355; Kirby, Cat. Het. p. 317.

Fore wing with the postmedial black patches obsolescent and replaced by fuscous.

Hab. JAVA, 1 ♀ type, (*Horsfield*) 1 ♀ type *bertha*; BALI (*Doherty*), 1 ♂.

*261. *Ilema uniplaga*. (Plate XXI. fig. 16.)

Teulisna uniplaga, Hmps. Moths Ind. ii. p. 88 (1894).

♀. Head, tegulæ, and outer half of patagia ochreous white; palpi, frons, distal half of antennæ, inner part of patagia and thorax black-brown; pectus and legs ochreous; abdomen fuscous, the extremity and ventral surface ochreous. Fore wing ochreous white strongly irrorated with brown, except the costal area to beyond middle where there is a small black spot; some black-brown at base of inner area; a large medial black-brown patch from subcostals to inner margin, its outer edge curved and its angle towards apex strongly excised. Hind wing fuscous.

Hab. BURMA, Tenasserim Valley (*Doherty*), 1 ♀ type † in Coll. Druce. *Exp.* 25 millim.

*262. *Ilema semibrunnea*. (Plate XXII. fig. 1.)

Teulisna semibrunnea, Heyl. C.R. Soc. Ent. Belge, xxxv. p. cccxi (1891); Kirby, Cat. Het. p. 914.

♀. Head fuscous; frons black; thorax black, with the front of tegulæ and outer part of patagia whitish; abdomen fuscous, the anal tuft brown. Fore wing ochreous whitish suffused with fuscous, leaving the basal half of costal area whiter; a large black patch on inner area from near base to beyond middle, extending at its middle to subcostal nervure; an antemedial short black streak on costa; a postmedial series of short black streaks in the interspaces; the termen fuscous. Hind wing fuscous; the cilia ochreous, with a fuscous line through them.

Hab. JAVA, Preanger, type † ♀ in Coll. Heylaerts. *Exp.* 32 millim.

263. *Ilema chiloides*.

Teulisna chiloides, Wlk. Journ. Linn. Soc., Zool. vi. p. 109, ♀ (1862); Swinh. Cat. Het. Mus. Oxon. p. 120, pl. iv. f. 10; Kirby, Cat. Het. p. 317.

Corcua torta, Wlk. Journ. Linn. Soc., Zool. vi. p. 111, ♂ (1862); Swinh. Cat. Het. Mus. Oxon. p. 119, pl. iii. f. 10; Kirby, Cat. Het. p. 317.

Ityca humeralis, Wlk. xxxv. 1890 (1866); Kirby, Cat. Het. p. 382.

Diastrophia dasypyga, Feld. Reis. Nov. pl. 106. f. 13 (1874); Kirby, Cat. Het. p. 317.

♂. Head and thorax yellow-brown; tibiæ and tarsi blackish

above; abdomen greyish, with some yellow hair on dorsum, the terminal half black. Fore wing red-brown; the fringe of scales grey; an elongate black mark on costa before middle and a spot at middle with its lower extremity angled inwards; traces of a diffused postmedial band. Hind wing orange-yellow.

♀. Grey-brown; fore wing with obscure antemedial spot on costa instead of the elongate mark; a black point at lower angle of cell instead of the medial spot; some dark suffusion on basal half of inner area. Hind wing fuscous, pale towards base, the inner area yellowish.

Fore wing with vein 6 from below angle of cell in ♂, from angle in ♀; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. MALACCA, type ♂ *humeralis* in Mus. Oxon.; BORNEO, Sarawak (*Wallace*), 1 ♂, 2 ♀; JAVA; CELEBES, 1 ♂; BALI (*Doherty*), 1 ♂; QUEENSLAND. *Exp.* 30 millim. Types ♂ *torta* and ♀ *chiloides* in Mus. Oxon.; type ♂ *dasyppyga* in Coll. Rothschild.

264. *Ilema bipunctata*.

Lithosia bipunctata, Wlk. xxxv. 1884 (1866), ♀; Swinh. Cat. Het. Mus. Oxon. p. 120; Kirby, Cat. Het. p. 379.

Corcua mysolica, Swinh. Cat. Het. Mus. Oxon. p. 119, pl. iii. f. 18, ♂ (1892).

♂. Head and thorax brown and white; tibiæ and tarsi blackish above; abdomen greyish, with some yellow hairs on dorsum, the terminal half black. Fore wing red-brown, the fringe of scales greyish; an oblique quadrate black patch on middle of costa; an indistinct diffused postmedial band. Hind wing orange-yellow.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

♀. Abdomen with the terminal half not black; fore wing with antemedial black point on costa instead of the quadrate medial patch.

Hab. MYSOLO (*Wallace*), type ♂ *mysolica* in Mus. Oxon.; N. GUINEA, type ♂ ♀ in Mus. Oxon., Kapaur (*Doherty*), 3 ♂; LOUISIADÉS, Rossel I. (*Meek*), 2 ♂; QUEENSLAND. *Exp.* 30 millim.

*b*³. Fore wing with the tornus not hooked; hind wing of male without pouch below the cell.

*a*¹. Fore wing with the costa lobed at middle.

*265. *Ilema fimbriata*. (Plate XXI. fig. 17.)

Tegulata fimbriata, Leech, Ent. xxiii. p. 81 (1890); Kirby, Cat. Het. p. 333.

♂. Head, thorax, and abdomen greyish brown; the ventral surface and anal tuft black. Fore wing greyish brown, the basal half of costal area and fringe greyer, the inner area browner suffused with fuscous; an elongate antemedial black spot on costa; a short oblique line from costa above end of cell; a somewhat triangular obscure fuscous patch on apical part of costa, with traces of a subterminal line arising from it, diffused on inner half. Hind wing pale yellowish brown, the terminal area broadly suffused with fuscous.

Hab. C. CHINA, Chang-yang, type ♂ in Coll. Leech. *Exp.* 34 millim.

b¹. Fore wing without costal lobe.

266. *Ilema inducta*.

Lithosia inducta, Wlk. xxxi. 232 (1864); Hmps. Ill. Het. viii. p. 4, pl. 143. f. 1; id. Moths Ind. ii. p. 87; Kirby, Cat. Het. p. 332.

♂. Head and thorax fuscous; frons whitish; abdomen black, the basal segments greyish. Fore wing with white fascia on costal area to just beyond middle, with a broad black streak on its basal half; the fringe of scales grey; a diffused blackish medial band, and a similar narrower subterminal band. Hind wing pale yellow, with slight fuscous subterminal mark on vein 2.



Fig. 84.—*Ilema inducta*, ♂. 1.

♀. Anal tuft orange. Fore wing with the costal edge black, but no basal broad streak. A black point at lower angle of cell, the medial band absent.

Fore wing with veins 6, 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. NILGIRIS (*Walhouse*), 1 ♀ type, (*Hampson*) 1 ♂, 3 ♀. Exp. 30–36 millim.

b². Hind wing of male with some rough scaling on basal inner area; fore wing with large tuft and very short fringe at base of fold in cell.

267. *Ilema signata*.

Lithosia signata, Wlk. ii. 495 (1854); Kirby, Cat. Het. p. 317.

Lithosia brevimacula, Alph. Rom. Mém. ix. p. 130, pl. xiii. f. 5 (1897).

Thysanoptyx directa, Leech, Trans. Ent. Soc. 1899, p. 180.

♀. Head, tegulae, and base of patagia pale yellow; antennae, tips of patagia, and thorax black; tibiae and tarsi blackish; abdomen grey, yellowish towards extremity. Fore wing yellowish grey; the costal area whiter to beyond middle; a prominent round postmedial black spot on costa, and a large round patch rather nearer the base extending from the cell to near inner margin. Hind wing

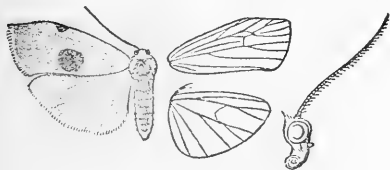


Fig. 85.—*Ilema signata*, ♀. 1.

yellow. Underside of fore wing suffused with fuscous, the costal and terminal areas yellow.

♂ with the ground-colour of fore wing much more grey.

Ab. 1. *brevimacula*. Fore wing with the lower black patch reduced; the thorax sometimes grey.

Ab. 2. *directa*. Fore wing with the lower black patch bar-shaped; thorax grey or with black stripe.

Fore wing with veins 3, 4 shortly stalked or from cell; 9 from 10 anastomosing with 8 to form the areole; 6 and 7 from a point at end of areole or shortly stalked; 11 anastomosing with 12.

Hab. N. CHINA (*Fortune*), 2 ♀, type. *Exp.* 39–42 millim. Type † *directa* in Coll. Leech.

c². (*Zadudra*). Hind wing of male with large patch of androconia below medial part of costa; fore wing with the inner margin highly arched and fringed with hair towards base.

268. *Ilema distorta*.

Lithosia distorta, Moore, P. Z. S. 1872, p. 572; id. P. Z. S. 1878, pl. ii. f. 15; Hmps. Moths Ind. ii. p. 77; Kirby, Cat. Het. p. 319.

♂. Head blackish, the vertex dull orange; thorax and abdomen grey, the ventral surface and anal tuft orange. Fore wing fuscous



Fig. 86.—*Ilema distorta*, ♂. 1.
(From Moths Ind. vol. ii.)

grey; the costal area ochreous suffused with fulvous, with a round black spot beyond middle, with an obscure obliquely-curved fuscous band from it to inner margin; the inner margin narrowly ochreous. Hind wing pale yellow, tinged with fuscous towards

apex; the patch of androconia fuscous.

♀. Fore wing with the interspaces of outer half obscurely streaked with ochreous; the costal fascia yellowish white and the spot more triangular.

Ab. 1. ♂. Fore wing without the black spot on costa.—Nepal.

Ab. 2. ♀. Fore wing without the ochreous streaks in interspaces.—Pulo Laut.

Fore wing with vein 2 in male from well beyond middle of cell; 9 from 10 anastomosing with 8 to form the areole; 6 and 7 from areole; 11 free, in male from near end of cell.

Hab. NEPAL (*Hardwicke*), 1 ♂; SIKHIM (*Lidderdale*), 1 ♂; ASSAM, Khâsis, Moore Coll., 2 ♂, 1 ♀ type, Nâga Hills; PULO LAUT (*Doherty*), 1 ♀. *Exp.* 34–42 millim.

d². (*Prabhasa*). Hind wing of male without secondary sexual characters.

a¹. Fore wing with large quadrate postmedial black patch from cell to inner margin ... *tetragona*.

b¹. Fore wing without postmedial black mark below the cell.

a¹. Fore wing with postmedial black spot on costa.

a⁵. Hind wing fuscous brown.

a⁵. Fore wing dark brown, with prominent pale costal fascia ... *flavicosta*.

b⁵. Fore wing paler brown, with indistinct costal fascia ... *venosa*.

- b*⁵. Hind wing pale yellowish.
*a*⁶. Fore wing dark fuscous, with prominent pale fasciæ on costa and inner margin *plumbeomicans*.
*b*⁶. Fore wing whitish, streaked and suffused with fuscous *costalis*.
*b*⁴. Fore wing without postmedial black spot on costa.
*a*⁵. Fore wing grey-brown.
*a*⁶. Fore wing of male with leaden fuscous streak below terminal part of fold in cell *fuscistriga*.
*b*⁶. Fore wing of male without fuscous streak in cell *cana*.
*b*⁵. Fore wing purplish black-brown *brunnea*.

269. *Ilema tetragona*.

Lithosia tetragona, Wlk. ii. 510 (1854); Butl. Ill. Het. v. p. 39, pl. 86. f. 14; Hmps. Moths Ind. ii. p. 75; Kirby, Cat. Het. p. 317.
Teulisna tenuisigna, Moore, P. Z. S. 1878, p. 24, pl. ii. f. 13; Kirby, Cat. Het. p. 317.
Teulisna sordida, Butl. Ill. Het. v. p. 39, pl. 86. f. 15 (1881); Kirby, Cat. Het. p. 317.

Head, tegulæ, and base of patagia yellowish white; palpi at tips, frons, antennæ, the rest of patagia, and thorax deep black; abdomen

fuscous, the anal tuft yellowish. Fore wing yellowish white, with large quadrate black patch extending from well before the middle to well beyond the middle and from subcostal nervure to inner margin, its upper extremity rounded; a small postmedial tri-

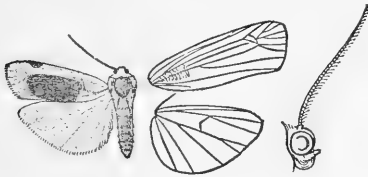


Fig. 87.—*Ilema tetragona*, ♂. 1.
 (From Moths Ind. vol. ii.)

angular black patch on costa; the costa towards apex and cilia black. Hind wing pale yellow, in male with slight fuscous suffusion near lower angle of cell.

Fore wing with veins 3, 4 from cell or in female sometimes stalked; 9 from 10 anastomosing with 8 to form the areole; 6, 7 from areole, sometimes stalked; 11 anastomosing with 12.

Ab. 1. *sordida*. Fore wing with the upper part of patch more rounded; female with a short black streak on vein 1 near base.

Hab. CHINA, Foochow (*De la Touche*), 1 ♀; SIKHIM, 2 ♂, type *tenuisigna* (*Liddlerdale*), 2 ♀, type *sordida*; ASSAM, Nágas, Silhet, 1 ♂ type; NILGIRIS (*Hampson*), 1 ♂; TRAVANCORE (*Fergusson*), 1 ♀; CAMBODIA (*Mouhot*), 1 ♂. *Exp.* 30–44 millim.

Subsp. 1. *oblonga*, Butl. Trans. Ent. Soc. 1877, p. 355; Kirby, Cat. Het. p. 317.

Fore wing with the black patch considerably shorter, not extending so far towards base or termen.

Hab. BORNEO, Sarawak (*Wallace*), 2 ♂, 1 ♀ type. *Exp.*, ♂ 30, ♀ 36 millim.

270. *Ilema flavicosta*.

Prabhasa flavicosta, Moore, P. Z. S. 1878, p. 26, pl. ii. f. 17; Hmps. Moths Ind. ii. p. 77; Kirby, Cat. Het. p. 320.

♀. Dark brown; vertex of head and anal tuft yellowish. Fore wing with the costal area ochreous, terminating in a point before apex; a postmedial black spot on costa and traces of an oblique postmedial line; slight yellow marks in the interspaces of termen. Hind wing with the cilia yellowish.

Fore wing with vein 6 from cell or stalked with 7, 8, 9; 10 free; 11 anastomosing with 12.

Hab. ASSAM, Khâsis, 1 ♀ type; PULO LAUT (*Doherty*), 1 ♀. *Exp.* 34 millim.

271. *Ilema venosa*.

Prabhasa venosa, Moore, P. Z. S. 1878, p. 26, pl. ii. f. 16; Hmps. Moths Ind. ii. p. 76; Kirby, Cat. Het. p. 320.

♂. Yellow-brown; head yellowish; abdomen greyish, the anal tuft fulvous. Fore wing suffused with fuscous in parts, the veins streaked with fuscous; the ridge of scales leaden grey; a small triangular postmedial black spot on costa, with a diffused postmedial line arising from it strongly recurved from below costa to vein 3, then oblique. Hind wing fuscous, the cilia yellowish.

♀. Hind wing pale yellow-brown.

Fore wing with veins 3, 4 shortly stalked; 6 from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. SIKHIM, 1 ♂, 6 ♀, type; ASSAM, Jaintia and Nâga Hills; BURMA. *Exp.*, ♂ 30, ♀ 34 millim.

272. *Ilema plumbeomicans*. (Plate XXI. fig. 19.)

Prabhasa plumbeomicans, Hmps. Moths Ind. ii. p. 77 (1894).

♂. Fuscous brown; vertex of head orange-yellow; abdomen greyish, the anal tuft ochreous. Fore wing with the costal area ochreous to near apex; a small postmedial black spot on costa, and traces of an oblique line; the inner margin and cilia ochreous. Hind wing ochreous white, suffused with fuscous brown towards apex.

Fore wing with the inner margin arched before middle; veins 6, 7, 8, 9 stalked; 10, 11 free.

♀. Fore wing with the postmedial spot larger, the line more distinct; the terminal interspaces with ochreous streaks; hind wing more suffused with fuscous.

Hab. SIKHIM, 4000 feet (*Pilcher*), 1 ♀; ASSAM, Nâga Hills (*Doherty*), type † in Coll. Elwes. *Exp.* 30 millim.

273. *Ilema costalis*. (Plate XXI. fig. 29.)

Prabhasa costalis, Moore, P. Z. S. 1878, p. 26; Kirby, Cat. Het. p. 320.

Cossa nob cula, Moore, P. Z. S. 1879, p. 594; Hmps. Moths Ind. ii. p. 83; Kirby, Cat. Het. p. 322.

Prabhasa fimbriata, Hmps. Moths Ind. ii. p. 76 (1894).

♂. Head and thorax fuscous, vertex of head orange-yellow; abdomen grey, the anal tuft and ventral surface ochreous. Fore wing fuscous, with an ochreous fascia below costa and obscure streak on inner area and in terminal interspaces; the fringe of scales in cell leaden grey; a large round black spot on costa beyond middle, and traces of an oblique diffused postmedial line on inner area. Hind wing ochreous suffused with fuscous, except on inner area.

♀. Much paler, with the markings of fore wing obsolescent; hind wing pale yellow.

Fore wing with veins 3, 4 shortly stalked; 6, 7 from cell; 8, 9 stalked; 10, 11 free, much curved, or 11 anastomosing with 12 or 7 stalked with 8; 9 from 10 anastomosing with 8 to form the areole.

Hab. N. CHINA, 1 ♂, 1 ♀ type; ASSAM, Khásis, 1 ♂; BURMA, Bernardmyo, E. Pegu (*Doherty*), type † *fimbriata* in Coll. Elwes; ANDAMANS, 2 ♀, type *nubecula*; PULO LAUT (*Doherty*), 1 ♀. *Exp.*, ♂ 30, ♀ 32 millim.

274. *Ilema fuscistriga*. (Plate XXI. fig. 21.)

Prabhasa fuscistriga, Hmps. Moths Ind. ii. p. 77 (1894).

♂. Grey-brown; anal tuft ochreous. Fore wing with smoky-black streak in cell below the terminal part of the fringe of scales; the basal half of wing with a slight reddish tinge. Hind wing greyish, suffused with ochreous at base or to beyond middle.

Fore wing with veins 3, 4 shortly stalked; 6 stalked with 7, 8; 9 from 10 anastomosing with 8 to form the areole; 11 free; the apex acute.

Hab. ASSAM, Khásis, 1 ♂; BURMA, Bernardmyo (*Doherty*), type † in Coll. Elwes. *Exp.* 30 millim.

*275. *Ilema cana*. (Plate XXI. fig. 22.)

Prabhasa cana, Hmps. Moths Ind. iv. p. 495 (1896).

♂. Grey-white, with a slight ochreous tinge; hind wing yellowish white.

Hab. ASSAM, Khásis, 1 ♂ type † in Coll. Elwes. *Exp.* 30 millim.

276. *Ilema brunnea*.

Cossa brunnea, Moore, P. Z. S. 1878, p. 22, pl. ii. f. 11; Kirby, Cat. Het. p. 332.

♀. Head, thorax, and abdomen dark brown. Fore wing brown, suffused with purplish black and irrorated with some black scales. Hind wing fuscous brown.

Hab. SIKHIM, 7000 feet (*Pilcher*), 1 ♀. *Exp.* 32 millim. Type † in Coll. Staudinger.

- b. (Lophoneura).* Fore wing of male with a radiating tuft of scales in cell just beyond middle, and a fringe of scales on costa beyond middle; hind wing with the inner area clothed with rough scales.

*277. *Ilema uniformis*.

Lophoneura uniformis, Hmps. Moths Ind. ii. p. 78 (1894).

♂. Uniform pale straw-yellow. Fore wing very slightly irrorated with pale brownish scales; the scale-fans rather brighter ochreous. Hind wing with the inner area pale orange-yellow.



Fig. 88.—*Ilema uniformis*, ♂. 1. (From Moths Ind. vol. ii.)

Fore wing with veins 3, 4 downcurved, 6 from below angle of cell; 7 from angle; 8, 9 stalked; 10, 11 free.

Hab. BURMA, Tenasserim (*Doherty*), 1 ♂ type† in Coll. Druce. *Exp.* 28 millim.

- c.* Fore wing of male with slight fringe of small scales above terminal part of fold in cell.

278. *Ilema simplex*.

Lithosia simplex, Wlk. Journ. Linn. Soc., Zool. vi. p. 105 (1862); Swinh. Cat. Het. Mus. Oxon. p. 125; Kirby, Cat. Het. p. 325.

Lithosia microxantha, Hmps. Moths Ind. ii. p. 81 (1894).

♂. Uniform orange-yellow. Hind wing paler, except towards apex. Fore wing rather short and broad, with the cell hardly



Fig. 89.—*Ilema simplex*, ♂. 1.

widening at extremity; veins 3, 4 on a very long stalk; 6 from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. BURMA, E. Pegu (*Doherty*), type† ♂ *microxantha* in Coll. Elwes; BORNEO, Sarawak (*Wallace*), 2 ♂, type† in Mus. Oxon. *Exp.* 24 millim.

- d. Fore wing of male without fringe of scales in cell.
 a¹. Fore wing with postmedial line and subterminal dark streaks on the veins *nebulosa*.
 b¹. Fore wing without markings
 a². Hind wing thickly clothed with orange-yellow scales..... *repleta*.
 b². Hind wing pale, thinly scaled..... *auriflua*.

279. *Ilema nebulosa*.

Lithosia nebulosa, Wlk. Journ. Linn. Soc., Zool. vi. p. 106 (1862); Swinh. Cat. Het. Mus. Oxon. p. 127, pl. iv. f. 18; Kirby, Cat. Het. p. 320.

♂. Orange-yellow; abdomen greyish towards base. Fore wing with diffused postmedial dark line acutely angled outwards between veins 2 and 3; the veins on subterminal area streaked with fuscous and with some diffused fuscous between them. Hind wing pale yellow.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ type † in Mus. Oxon. *Exp.* 24 millim.

280. *Ilema repleta*. (Plate XXI. fig. 28.)

Brunia repleta, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1070 (1890); Kirby, Cat. Het. p. 333.

♂. Orange-yellow, antennæ brownish; abdomen paler towards base. Fore wing thickly clothed with glistening scales. Hind wing thickly clothed with orange-yellow scales, the costal area paler.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♂. *Exp.* 30 millim.

281. *Ilema auriflua*.

Systropha dorsalis, Moore, P. Z. S. 1878, p. 18, ♀ (nec Wlk.); Hmps. Moths Ind. ii. p. 79; Kirby, Cat. Het. p. 330.

Systropha auriflua, Moore, P. Z. S. 1878, p. 18, pl. ii. f. 7 (♂); Hmps. Moths Ind. ii. p. 81; Kirby, Cat. Het. p. 331.

Lithosia sthenoptera, Hmps. Moths Ind. iv. p. 495 (1896).

Uniform pale straw-yellow; antennæ fuscous except towards base.

Fore wing long and narrow, with vein 6 from well below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12; the cell widening at extremity.



Fig. 90.—*Ilema auriflua*, ♂. †.

Hab. BENGAL, Mynpuri, 1 ♂, type *auriflua*, Moore Coll.; ASSAM, Khâsis, 1 ♂, 1 ♀, type † *sthenoptera*; SIKHIM, type † ♀ in Coll. Staudinger. *Exp.* 26 millim.

- C. (*Capissa*). Fore wing of male with a furrow just below median nervure from near base to end of cell, with streaks of androconia above and below it; hind wing with very large patch of androconia on disk.

282. *Ilema vagesa*.

Lithosia vagesa, Moore, Lep. E. I. Co. p. 304; Hmps. Moths Ind. ii. p. 85; Kirby, Cat. Het. p. 331.

Orange-yellow; palpi blackish at extremity; antennæ and legs

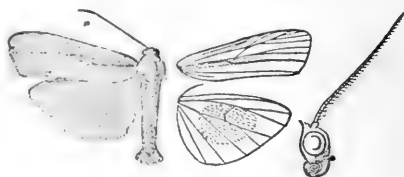


Fig. 91.—*Ilema vagesa*, ♂. 1.

black. Fore wing with the streaks of androconia greyish fulvous. Hind wing with the patch of androconia fulvous.

Hab. SIKHIM, 1 ♀ type; ASSAM, Khâsis, 1 ♀. *Exp.* 42 millim.

Subsp. 1. *innolata*, Butl. Trans. Ent. Soc. 1877, p. 352; Moore, P. Z. S. 1878, pl. ii. f. 2; Kirby, Cat. Het. p. 331.

Capissa auriflava, Moore, P. Z. S. 1878, p. 19; Kirby, Cat. Het. p. 331.

Capissa flavens, Moore, P. Z. S. 1878, p. 20; Kirby, Cat. Het. p. 331.

Legs with black bands at extremities of femora, tibia, and tarsal joints.

Ab. 1. *auriflava*. Colour fulvous orange.

Fore wing in one female with vein 10 stalked with 7, 8, 9, usually free; 11 sometimes not anastomosing with 12.

Hab. N.W. HIMALAYAS, Kashmir, Moore Coll., 2 ♀, type *flavens*, Masuri, type, Kangra (*Hocking*), 3 ♂, 1 ♀; NEPAL, 1 ♂, 1 ♀, type *auriflava*; UPPER BURMA, Kalewa (*Watson*), 1 ♂. *Exp.* 34-44 millim.

- D. (*Katha*). Fore wing of male with a slight ridge of rough scales in basal part of cell and a furrow below the cell.

- | | |
|---|----------------------|
| a. Fore wing with fuscous postmedial line angled outwards at middle | <i>oblitterans</i> . |
| b. Fore wing without postmedial line. | |
| a ¹ . Fore wing fuscous, with yellow costal fascia..... | <i>depressa</i> . |
| b ¹ . Fore wing whitish, with the termen yellow | <i>conformis</i> . |

283. *Ilema oblitterans*.

Lithosia oblitterans, Feld. Verh. zool.-bot. Ges. Wien, xviii. p. 285 (1868); Moore, Lep. Ceyl. ii. p. 57; Hmps. Moths Ind. ii. p. 82; Kirby, Cat. Het. p. 332.

Lithosia angulifera, Feld. Reis. Nov. pl. 106. f. 12 (1874); Hmps. Moths Ind. ii. p. 82; Kirby, Cat. Het. p. 331.

Lithosia undulata, Heyl. C.R. Soc. Ent. Belge, xxxv. p. ccccx (1891); Kirby, Cat. Het. p. 915.

Katha brevipennis, ♂, Hmps. Ill. Het. viii. pl. 139. f. 2 (nec Wlk.).

♂. Yellow-brown; abdomen greyish, the extremity yellow.



Fig. 92.—*Ilemia oblitterans*, ♂. 1.

Fore wing with a diffused dark postmedial line, angled inward; at vein 6, outwards at vein 4, and incurved towards inner margin. Hind wing pale yellow.

♀. Similar to male in the Indian form; the head, thorax, and fore wing purplish grey in the typical Ceylon form.

Fore wing with vein 6 from long below angle of cell; 7, 8, 9 stalked; 10 free.

The Kilima'njaro female is grey with the hind wing browner.

Hab. E. AFRICA, Kilima'njaro (*Jackson*), 1 ♀; SIKHIM (*Pilcher*), 3 ♂, Belgaum (*Watson*), 1 ♀; NILGIRIS (*Hampson*), 1 ♂, 3 ♀; CEYLON (*Green*), 2 ♂, 5 ♀; JAVA, Preanger, type † *undulata* in Coll. Heylaerts. *Exp.*, ♂ 26, ♀ 30 millim.

284. *Ilemia depressa*.

Noctua complana, Esp. Schmett. iv. (1) p. 95, pl. 92. f. 8 (1786), nec Linn.
Noctua deplana, Esp. Schmett. iv. (1) p. 97, pl. 93. ff. 1, 2 (1786), nec Linn.; Staud. Cat. p. 53.

Noctua depressa, Esp. Schmett. iv. (1) p. 97, pl. 93. f. 3 (1786); Steph. Ill. Brit. Ent., Harst. p. 96; Dup. Lép. Fr. iii. p. 18, pl. i. f. 6; Boisd. Icones, Lép. ii. p. 101, pl. 57. f. 7; Kirby, Cat. Het. p. 328.

Lithosia helveola, Ochs. Schmett. Eur. ii. p. 133 (1810); Dup. Lép. Fr. iii. p. 24, pl. i. f. 2; Boisd. Icones, Lép. ii. p. 102, pl. 57. f. 8.

Noctua luteola, Hübn. Beitr. Schmett. iii. (1) p. 11, pl. i. e. (1827).

Bombyx helveola, Hübn. Eur. Schmett. ii. f. 95 (1827).

Bombyx ochreola, Hübn. Eur. Schmett. ii. f. 96 (1827).

Lithosia paveszens, Butl. A. M. N. H. (4) xx. p. 398 (1877); id. Ill. Hct. B. M. ii. p. 7, pl. 23. f. 5; Kirby, Cat. Het. p. 328.

♂. Head, tegulae, patagia, and thorax orange; palpi and antennae blackish; tibiae and tarsi mostly blackish; abdomen with the basal half grey, the terminal half orange. Fore wing grey, with a slight yellow tinge; an orange streak below basal third of costa; the costa towards apex and cilia yellow. Hind wing yellowish grey, the costal and terminal areas broadly darker grey; cilia yellow.

♀. Fore wing with complete costal fascia narrowing to apex.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; one specimen with 10, 11 stalked.

Ab. 1. *helveola*. Fore and hind wings with the ground-colour whitish.

Hab. BRITAIN; FRANCE; GERMANY, Zell. & Frey Colls.; N. ITALY; LIVONIA; SCANDINAVIA; RUSSIA; JAPAN (*Whitely*), 1 ♂, type *pavescens*, Tokio (*Penton*), 2 ♂. *Exp.* 32-36 millim.

Larva, Meyr. Brit. Lep. p. 27; Barrett, Lep. Brit. ii. p. 215, pl. 67. f. 2.

Grey, tinged with brown or green; dorsum paler or whitish; hairs grey; dorsal line double, black, interrupted; subdorsal line black, interrupted; black dorsal spots on somites 3 and 7; a white subdorsal spot on somite 8; head dark grey, marked with black. Food-plant, Lichens; 8-6.

285. *Ilema conformis*.

Lithosia conformis, Wlk. ii. 509 (1854); Hmps. Moths Ind. ii. p. 83; Kirby, Cat. Het. p. 329.

Lithosia nigrifrons, Moore, P. Z. S. 1872, p. 572; id. P. Z. S. 1878, p. 17, pl. i. f. 15; Hmps. Moths Ind. ii. p. 84; Kirby, Cat. Het. p. 329.

Lithosia laevis, Butl. A. M. N. H. (4) xx. p. 398 (1877); id. Ill. Het. B. M. ii. p. 7, pl. 22. f. 12; Kirby, Cat. Het. p. 329.

♂. Head and thorax fulvous yellow; palpi, frons, antennæ, and greater part of legs blackish; patagia grey at tips; abdomen orange, greyish towards base. Fore wing white with a pinkish tinge, the costa towards apex and termen orange-yellow. Hind wing whitish, with the terminal area yellow. Underside of fore wing tinged with fuscous.

Fore wing with vein 6 from below angle of cell; 7, 8, 9, 10 stalked, or 10 from cell; 11 anastomosing with 12.

♀. Head, pectus, and ventral surface of abdomen black; fore wing broader and yellower; hind wing yellower.

Hab. JAPAN (*Jonas*), type *laevis*; N.W. HIMALAYAS, type ♀, Dharmasala, type *nigrifrons*, Moore Coll., Kangra (*Hocking*); SIKKIM; BHUTÁN (*Dudgeon*). *Exp.* 30-40 millim.

E. (*Ilema*.) Wings without secondary sexual characters.

a. Fore wing with fuscous medial line, the terminal area with dark streaks.

a¹. Fore wing with the medial line strongly angled outwards below the cell..... *perdentata*.

b¹. Fore wing with the medial line excurved below the cell..... *divisa*.

c¹. Fore wing with the medial line not excurved below the cell..... *setiniformis*.

b. Fore wing with oblique medial line formed by black strigæ..... *punctistriata*

c. Fore wing with more or less prominent dark post-medial line.

a¹. Fore wing with the postmedial line strongly excurved beyond the cell.

a². Fore wing with brownish streaks and dark irroration in the interspaces; size large..... *sordida* (♂).

- b*². Fore wing whitish or greyish, with dark irroration.
- a*³. Fore wing with the postmedial line bent outwards nearly to termen.
- a*⁴. Fore wing strongly suffused with fuscous; male with the base of wings suffused with fulvous scales *flexistriata*.
- b*⁴. Fore wing with some brownish irroration; male with no fulvous scales at base..... *maculosa*.
- b*³. Fore wing with the postmedial line not approaching termen *notifera*.
- c*². Fore wing pale rufous..... *ardens*.
- b*¹. Fore wing with the postmedial line angled beyond the cell, then oblique.
- a*². Fore wing pale rufous..... *carnea*.
- b*². Fore wing brownish, irrorated with fuscous..... *reticulata*.
- c*². Fore wing orange *goniophora*.
- d*. Fore wing without lines.
- a*¹. Fore wing white, with postmedial series of black spots strongly excurved beyond cell..... *kingdoni* (♀).
- b*¹. Fore wing orange, with antemedial black spot below cell, medial spots on costa and inner margin and discoidal spot.
- a*². Fore wing with the costa crimson.
- a*³. Fore wing with the cilia black *erythropleura*.
- b*³. Fore wing with the cilia orange..... *marginata*.
- b*². Fore wing with the costa not crimson *mabillei*.
- c*¹. Fore wing white, with antemedial black point below the cell and another on middle of costa..... *argentea* (♀).
- d*¹. Fore wing white, with spots on costa and inner margin just beyond middle and subterminal spot above vein 4 *trispilota*.
- c*¹. Fore wing grey, with postmedial black spots below costa and in submedian fold..... *eningæ*.
- f*¹. Fore wing with postmedial black spot on costa.
- a*². Fore wing with postmedial black spot in submedian fold.
- a*³. Fore wing with antemedial black spot on costa and discoidal point *pallida*.
- b*³. Fore wing without antemedial black spot on costa or discoidal point..... *bipuncta*.
- b*². Fore wing without postmedial black spot in submedian fold.
- a*³. Fore wing with subterminal black spot in discal fold *insignis*.
- b*³. Fore wing with antemedial black spot on costa. *quadrisignata*.
- g*¹. Fore wing with black spot below costa just beyond middle..... *costipuncta*.
- h*¹. Fore wing with black basal patch on whitish costal fascia..... *basigera*.
- i*¹. Fore wing without black spots on costal area in male.
- a*². Fore wing of male with black band on terminal area.
- a*³. Fore wing bright orange.
- a*¹. Fore and hind wings with large fuscous patches on terminal area *elegans*.
- b*¹. Fore and hind wings with small fuscous patches on terminal area *xanthopa*.
- b*³. Fore wing greyish.
- a*¹. Fore wing of male with the black band extending to costa. Female with black postmedial spots on costa, discocellulars, and in submedian fold *apicalis*.

- b*⁴. Fore wing of male with the terminal band not extending to costa.
*a*⁵. Fore wing with the costa orange above the terminal band *dorsalis* (♂).
*b*⁵. Fore wing with the costa not orange above the band, which is subterminal... *terminalis* (♂).
*c*⁴. Fore wing with diffused fuscous on terminal area.
*a*⁷. Head and thorax blackish *cucullata*.
*b*⁷. Head yellowish, thorax grey.
*a*⁹. Fore wing with the costa yellowish above the fuscous on termen *simulans*.
*b*⁹. Fore wing with the costa not yellowish towards apex *squalida*.
*b*². Fore wing with a large fuscous patch from before middle to near termen not extending to costa and enclosing a discoidal yellow patch *badrana* (♀).
*c*². Fore wing with fuscous patch on inner area from middle to near termen, extending to vein 7 on terminal area *nehulifera* (♀).
*d*². Fore wing of male with broad oblique fuscous shade from below apex to middle of inner margin; female uniform orange *fasciata*.
*c*². Fore wing of male without fuscous terminal band or patch.
*a*³. Fore wing with broad white costal fascia ... *albicosta*.
*b*³. Fore wing with well-defined yellow or orange fascia on costal area.
*a*⁴. Fore wing grey-black, with yellow subcostal fascia; male with yellow medial patch on inner area *replana*.
*b*⁴. Fore wing with costal fascia.
*a*⁵. Hind wing black, with the costa orange.
*b*⁵. Hind wing blackish, with the basal area orange *atrata*.
*c*⁵. Hind wing orange, with the costal half blackish *flavibasis*.
*d*⁵. Hind wing orange, with black suffusion at base *sarceola*.
*e*⁵. Hind wing without black, suffusion on basal or costal areas.
*a*⁶. Fore wing with the veins streaked with orange *arculifera*.
*b*⁶. Fore wing with the veins not streaked with orange.
*a*⁷. Fore wing with more or less broad costal fascia.
*a*⁸. Fore wing with the costal fascia of almost even width throughout.
*a*⁹. Fore wing dark brown.
*a*¹⁰. Fore wing with the cilia only yellow; hind wing dark brown *prabana*.
*b*¹⁰. Fore wing with terminal yellow band; hind wing yellow *fumidisca*.
*b*⁹. Fore wing grey.
*a*¹⁰. Fore wing with the terminal area broadly yellowish on underside.
*a*¹¹. Tegulae orange *complana*.
*b*¹¹. Tegulae grey *morosina*.

- b*¹⁰. Fore wing with the termen narrowly yellow on under-side.
*a*¹¹. Fore wing dark grey.
*a*¹². Hind wing without fuscous suffusion *vicaria*.
*b*¹². Hind wing more or less completely suffused with fuscous..... *sericea*.
*b*¹¹. Fore wing very pale grey; hind wing with slight fuscous suffusion on costal area *gracillipennis*.
*b*⁸. Fore wing with the costal fascia attenuated to a point towards apex.
*a*⁹. Head black *debilis*.
*b*⁹. Head grey *sokotrensis*.
*c*⁹. Head yellow.
*a*¹⁰. Hind wing yellow.
*a*¹¹. Fore wing with the costal fascia broad, the costal edge black at base..... *lurideola*.
*b*¹¹. Fore wing with the costal fascia narrower, the costal edge not black at base *harpophora*.
*b*¹⁰. Hind wing tinged with fuscous, the cilia yellow ... *coreana*.
*c*¹⁰. Hind wing fuscous, the cilia yellow *japonica*.
*b*⁷. Fore wing with the costal edge only yellow.
*a*⁸. Hind wing yellow *griseola*.
*b*⁸. Hind wing white.
*a*⁹. Fore wing irrorated with dark scales *xanthocraspis*.
*b*⁹. Fore wing not irrorated with dark scales *caniola*.
*c*³. Fore wing with narrow black costal fascia ... *stevensi*.
*d*³. Fore wing without costal fascia.
*a*⁴. Fore wing dark fuscous brown irrorated with grey scales..... *basinota*.
*b*⁴. Fore wing pale grey-brown.
*a*⁵. Fore wing with the veins concolorous.
*a*⁶. Frons black; fore wing without discoidal point *pulvereola*.
*b*⁶. Frons yellowish; fore wing with indistinct discoidal point *monochroma*.
*b*⁸. Fore wing with the veins darker *mauritica*.
*c*¹. Fore wing orange or yellow.
*a*⁸. Hind wing dark fuscous, with the cilia orange *flavociliata*.
*b*⁵. Hind wing yellow.
*a*⁶. Fore wing suffused with grey-brown.
*a*⁷. Fore wing of male with discoidal dark point.
*a*⁸. Hind wing tinged with fulvous on basal half..... *discifera*.
*b*⁸. Hind wing pale yellow *punctifera*.

- b*⁷. Fore wing of male without discoidal point.
*a*⁸. Ground-colour orange *fraterna*.
*b*⁸. Ground-colour pale yellow..... *brevipennis*.
*b*⁶. Fore wing more or less completely suffused with fuscous, except the costal area.
*a*⁷. Hind wing with more or less fuscous suffusion on costal area.
*a*⁸. Abdomen with the basal segments greyish; average size 36 millim. *palliatella*.
*b*⁸. Abdomen with the basal segments blackish; average size 28 millim. *lutarella*.
*b*⁷. Hind wing without fuscous suffusion on costal area..... *cereola*.
*c*⁶. Fore wing without trace of fuscous suffusion.
*a*⁷. Fore wing irrorated with black points *cribrata*.
*b*⁷. Fore wing without black points.
*a*⁸. Abdomen blackish with the extremity orange *sororcula*.
*b*⁸. Abdomen uniform orange or yellow.
*a*⁹. Fore wing deep orange; size large *nigripes*.
*b*⁹. Fore wing pale orange; size small.
*a*¹⁰. Fore wing uniform in colour.
*a*¹¹. Fore wing with the costal edge not black towards base *decreta*.
*b*¹¹. Fore wing with the costal edge black towards base *calamaria*.
*b*¹⁰. Fore wing with the costal edge deeper orange *albidula*.
*d*⁴. Fore wing of male clothed with powdery white scales; female uniform orange.
*a*⁵. Hind wing yellow.
*a*⁶. Thorax of male orange; fore wing with the base of costal area and the terminal area orange *suffusa*.
*b*⁶. Thorax of male white, slightly tinged with orange; fore wing with the base of costal area white, the terminal area slightly tinged with orange..... *nigripoda*.
*b*⁵. Hind wing brownish white *moorei*.
*c*¹. Fore wing white and smoothly scaled.
*a*⁵. Hind wing pale yellow; fore wing with the termen tinged with yellow . *nigripars*.
*b*⁵. Hind wing white.
*a*⁹. Abdomen tinged with fuscous, the terminal segments orange..... *varana*.
*b*⁵. Abdomen white.
*a*⁷. Underside of fore wing fuscous .. *degenerella*.
*b*⁷. Underside of fore wing white ... *virgineola*.

*286. *Ilema perdentata*. (Plate XXI. fig. 26.)

Ilema perdentata, Druce, A. M. N. H. (7) iv. p. 201 (1899).

♀. Head and thorax brownish ochreous; abdomen greyish, the anal tuft and ventral surface ochreous. Fore wing brownish ochreous; four short fuscous streaks on basal area; a medial line very oblique from costa to subcostal nervure, then very strongly angled outwards to beyond lower angle of cell and angled inwards again on vein 1; a series of short fuscous streaks on the veins of terminal area. Hind wing pale yellow.

Hab. PERAK, 3000 ft. (*Doherty*), type † ♀ in Coll. Druce. *Exp.* 24 millim.

287. *Ilema divisa*.

Hypoprepia divisa, Wlk. Journ. Linn. Soc., Zool. vi. p. 102 (1862); Swinh. Cat. Het. Mus. Oxon. p. 106, pl. 4. f. 21; Kirby, Cat. Het. p. 311.

Ochreous; frons, vertex of head, and patagia with fuscous spots; abdomen greyish, the anal tuft ochreous. Fore wing with sub-basal black point; the costa streaked with fuscous towards base; antemedial fuscous streaks below costa, in cell, below cell, and on vein 1; a medial line oblique from costa to median nervure, then slightly excurved to submedian fold; a discoidal spot; the veins of terminal area strongly streaked with fuscous. Hind wing pale yellow.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂, 2 ♀. *Exp.*, ♂ 24, ♀ 28 millim. Type † in Mus. Oxon.

288. *Ilema setiniformis*, n. sp. (Plate XXI. fig. 27.)

♂. Orange-yellow; vertex of head, patagia, and metathorax with black points. Fore wing with black point at base; blackish streaks below base of cell and on inner area to middle; a medial black line slightly angled inwards in submedian fold; postmedial fuscous streaks below costa and below veins 6 and 7 and short streaks in the interspaces of terminal area. Hind wing pale yellow.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. JAVA, Arjuno, 3000 ft. (*Doherty*), 1 ♂ type. *Exp.* 20 millim.

289. *Ilema punctistriata*. (Plate XXI. fig. 15.)

Sozusa punctistriata, Butl. Cist. Ent. iii. p. 4 (1882); Kirby, Cat. Het. p. 318.

♀. Orange; head and tegulae fulvous orange; palpi with the end of 2nd and 3rd joints black; antennae black; end of femora, tibiae on outer side, and tarsi greenish black. Fore wing with black point at base of costa; a medial black line, slightly outwardly oblique, interrupted at the veins, and slightly angled outwards on median nervure.

Fore wing with veins 9 from 10 anastomosing with 8 to form the areole, 11 free.

Hab. MADAGASCAR (*Cowan*), 1 ♀ type. *Exp.* 38 millim.

290. *Ilema sordida*. (Plate XXI. fig. 18.)

Sozusa sordida, Butl. Cist. Ent. iii. p. 5 (1882); Kirby, Cat. Het. p. 318.

Sozusa aspera, Butl. Cist. Ent. iii. p. 6 (1882); Kirby, Cat. Het. p. 318.

♂. White with a brownish tinge; palpi and base of frons black; vertex of head with a black spot; edges of tegulæ and a stripe on thorax blackish; abdomen tinged with blackish on dorsum. Fore wing slightly irrorated with black scales on inner and terminal areas; diffused brownish streaks below basal part of costa and cell and in end of cell; a diffused fuscous and brown postmedial line very strongly bent outwards from below costa to above vein 2. Hind wing faintly irrorated with fuscous.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole, 11 free.

Ab. 1. *aspera*. Less tinged with brown; fore wing wholly irrorated with prominent black scales; hind wing irrorated with fuscous on terminal half.

Hab. MADAGASCAR, Betsileo (Cowan), 3 ♂, type and type *aspera*. *Exp.* 50 millim.

291. *Ilema flexistriata*. (Plate XXXI. fig. 1.)

Prabhosa flexistriata, Butl. Cist. Ent. iii. p. 7 (1882), ♀; Kirby, Cat. Het. p. 320.

Prabhosa angustata, Butl. Cist. Ent. iii. p. 8 (1882), ♂; Kirby, Cat. Het. p. 320.

Prabhosa angulosa, Saalm. Lep. Madag. i. p. 167 (1884); Kirby, Cat. Het. p. 320.

♂. Brownish grey; head, tegulæ, extremity of abdomen, and basal area of both wings suffused with fulvous. Fore wing irrorated with black scales; a postmedial black point on costa with an obscure line from it bent outwards to points near termen below veins 6, 4 and 3, then retracted to points below middle of vein 2 and on inner margin. Hind wing whitish, tinged with fuscous towards apex.

♀. Without any fulvous suffusion; fore wing with the line and points often more strongly developed.

Fore wing with vein 6 from angle of cell or areole which is formed by 9 arising from 10 and anastomosing with 8; 11 anastomosing with 12.

Hab. MADAGASCAR, Betsileo (Cowan), 1 ♂, type *angustata*, 4 ♀ type. *Exp.*, ♂ 24, ♀ 28 millim.

*292. *Ilema maculosa*.

Prabhosa maculosa, Saalm. Léop. Madag. i. p. 166, pl. 5. f. 68 (1884); Kirby, Cat. Het. p. 320.

♂. Yellowish white; head and thorax tinged with brown; palpi blackish. Fore wing irrorated with large dark brown scales; some brown suffusion in submedian interspace extending beyond the cell up to vein 6 and with some dark patches on it; a black spot on middle of costa; traces of a postmedial line bent outwards at middle

to near termen and bounding the brown suffusion, then very oblique. Hind wing with the apical area tinged with brown.

Hab. MADAGASCAR, Betsileo (*Cowan*), type † ♂ in Coll. Staudinger. *Exp.* 26 millim.

293. *Ilema notifera*.

Capissa notifera, Saalm. Ber. Senck. Ges. 1879, p. 262; id. Lép. Madag. i. p. 165, pl. 6. f. 88; Kirby, Cat. Het. p. 320.

Prabhasa nigrosparsa, Butl. Cist. Ent. iii. p. 7 (1882); Kirby, Cat. Het. p. 320.

Prabhasa fasciata, Butl. Cist. Ent. iii. p. 8 (1882); Kirby, Cat. Het. p. 320.

Brownish grey; head, thorax, and fore wing irrorated with dark brown scales; abdomen grey, brownish towards extremity. Fore wing with postmedial brown spot on costa, with traces of a diffused line from it to an obscure spot below vein 7, where it is strongly angled, then retracted to an obscure spot in submedian fold below vein 2, then excurved again. Hind wing brownish white.

Ab. 1. *fasciata*. Fore wing with the line much more developed except towards costa and joined by a fascia from termen below apex.

Ab. 2. *nigrosparsa*. Fore wing with the line obsolete, the spots reduced.

Ab. 3. Fore wing with the dark irroration much reduced, the line obsolete and spots reduced.

Fore wing with vein 6 from or from below angle of cell; 9 from 10 anastomosing with 8 to form the areole; 11 free or anastomosing with 12.

Hab. MADAGASCAR, Betsileo (*Cowan*), 2 ♂, 2 ♀, types *nigrosparsa* and *fasciata*. *Exp.* 26–30 millim.

294. *Ilema ardens*. (Plate XXI. fig. 30.)

Prabhasa ardens, Butl. Cist. Ent. iii. p. 6 (1882); Kirby, Cat. Het. p. 320.

Lithosia subrosea, Mab. Ann. Soc. Ent. Fr. 1897, p. 220.

Rufous; abdomen with the basal half greyish. Fore wing irrorated with a few black scales; a postmedial black point on costa, some specimens with traces of an oblique line from it very acutely angled below vein 4, then retracted to an erect medial line from submedian nervure to inner margin. Hind wing yellowish white, the terminal half tinged with rufous.

Fore wing with veins 6 and 7 from the areole which is formed by 9 arising from 10 and anastomosing with 8; 11 anastomosing with 12.

Hab. MADAGASCAR, Betsileo (*Cowan*), 2 ♂, 3 ♀, type. *Exp.*, ♂ 20, ♀ 24 millim.

295. *Ilema carnea*. (Plate XXII. fig. 2.)

Prabhasa carnea, Butl. Cist. Ent. iii. p. 6 (1882); Kirby, Cat. Het. p. 320.

♀. Head and thorax white, suffused with pale pinkish rufous; abdomen grey, pale fulvous toward extremity. Fore wing pinkish white, irrorated with black scales; the costa fulvous; a fulvous postmedial spot on costa: an oblique fulvous line from below vein

7 to inner margin, then along the margin to near base; the apex and cilia tinged with fulvous. Hind wing white, tinged with fulvous towards termen.

Fore wing with vein 6 from angle of cell; 9 from 10 anastomosing with 8 to form the areole; 11 free.

Hab. MADAGASCAR, Betsileo (Cowan), 1 ♀ type. *Exp.* 30 millim.

296. *Ilema reticulata*. (Plate XXII. fig. 3.)

Lithosia reticulata, Moore, P. Z. S. 1865, p. 798; Hmps. Moths Ind. ii. p. 82; Kirby, Cat. Het. p. 331.

Pale grey-brown. Fore wing irrorated with large dark scales forming small spots; a dark spot on costa beyond middle, with an indistinct diffused line arising from it acutely angled beyond lower angle of cell. Hind wing pale yellow.

Fore wing with veins 3, 4 shortly stalked; 6 from long below angle of cell; 7, 8, 9 stalked; 10, 11 free.

Hab. N.W. HIMALAYAS, Dalhousie, 1 ♀; SIKKIM (Pilcher), 1 ♂, Moore Coll., 4 ♀, type. *Exp.* 34 millim.

297. *Ilema goniophora*, n. sp. (Plate XXII. fig. 4.)

♂. Orange; fore and mid tibiæ and tarsi black on outer side. Fore wing with somewhat diffused black band just beyond middle, angled beyond the cell, then incurved. Hind wing slightly yellow.

Hab. CAPE COLONY, Transkei (Miss F. Barrett), 1 ♂ type. *Exp.* 32 millim.

298. *Ilema kingdoni*. (Plate XXII. fig. 13.)

Lithosia kingdoni, Butl. Trans. Ent. Soc. 1877, p. 353; Kirby, Cat. Het. p. 318.

Sozusa albicans, Butl. Cist. Ent. iii. p. 5 (1882); Kirby, Cat. Het. p. 318.

♀. Head and thorax whitish ochreous; palpi and base of frons black; basal joint of antennæ with black spot behind; vertex of head with a prominent black spot; patagia with two black spots; meso- and metathorax with black spots; fore femora with black streak; tarsi with the terminal joints black; abdomen fulvous orange, with sublateral series of black spots. Fore wing whitish ochreous; a black spot at base; an antemedial spot in submedian fold; a spot towards end of cell; a spot on costa just beyond middle; a spot in discal fold beyond cell; an oblique series of three spots below end of cell. Hind wing orange-yellow.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 11 free.

Ab. 1. Head, thorax, legs, fore wing, and terminal half of hind wing white with an ochreous tinge, tegulæ and patagia edged with yellow.

Ab. 2. *albicans*. Head, thorax, legs, fore wing, and hind wing except the hair on basal and inner areas, silvery white; ventral surface of

abdomen white, the segments fringed with yellow. This may possibly be the female of *sordida*.

Hab. MADAGASCAR (*Shaw*), 3 ♀, type, Betsileo (*Cowan*), 1 ♀, type *albicans*. *Exp.* 52–64 millim.

***299. *Ilema erythropleura*. (Plate XXII. fig. 14.)**

Lithosia erythropleura, Mab. Ann. Soc. Ent. Fr. (5) ix. p. 302 (1879); Kirby, Cat. Het. p. 319.

♀. Head and thorax orange suffused with crimson; 3rd joint of palpi, antennæ except at base, tibiæ and tarsi blue-black; abdomen orange. Fore wing deep orange, with broad costal crimson fascia attenuated to a point before apex; an antemedial black spot in submedian fold; medial spots on costa and inner margin and a discoidal spot; cilia black. Hind wing deep orange; the cilia black from apex to vein 2.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 11 free.

Hab. MADAGASCAR, type † ♀ in Coll. Mabilie. *Exp.* 38 millim.

300. *Ilema marginata*. (Plate XXII. fig. 15.)

Lithosia marginata, Guér. Icon. R. Anim., Ins. p. 519 (1844); Kirby, Cat. Het. p. 318.

Head and thorax crimson; 3rd joint of palpi and antennæ black; legs crimson, the extremities of femora, tibiæ and tarsi, except middle part of hind tibiæ, deep metallic green; abdomen orange, tinged with crimson at base; wings orange. Fore wing with the costal area crimson, narrowing to apex; an antemedial black point in submedian fold; medial spots just below costa and above inner margin, and a spot in discal fold beyond the cell.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 11 free; in one specimen vein 6 arises from angle of cell.

Hab. MADAGASCAR, Antananarivo (*Joy*), 1 ♂, 2 ♀. *Exp.* 42–44 millim.

301. *Ilema mabiliei*. (Plate XXII. fig. 18.)

Sozusa mabiliei, Butl. Cist. Ent. iii. p. 5 (1882); Kirby, Cat. Het. p. 318.

♂. Orange-yellow; head and tegulæ orange-fulvous; 3rd joint of palpi and antennæ black; fore legs, except coxæ and base of femora, end of mid femora, tibiæ and tarsi, end of hind femora, base and extremity of tibiæ and tarsi except basal joint, deep metallic green. Fore wing with small obliquely-placed antemedial deep metallic green spots in submedian fold and on inner margin; a spot on costa just beyond middle and one in discal fold beyond cell.

♀. Fore wing with the spots larger.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 11 free.

Hab. MADAGASCAR (*Cowan*), 1 ♂, 2 ♀, type. *Exp.* 42 millim.

302. *Ilema argentea*. (Plate XXII. fig. 16.)

Sozusa argentea, Butl. A. M. N. H. (5) ii. p. 457 (1878); Kirby, Cat. Het. p. 318.

♀. White; palpi and lower part of frons black; fore tibiæ and tarsi blackish; abdomen fuscous, clothed with white hair. Fore wing silvery white, with antemedial black point or short streak in submedian fold; a small black spot below middle of costa, and sometimes another in discal fold beyond the cell.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 11 free.

Hab. MADAGASCAR, Ellongo, 1 ♀, type, Antananarivo, 1 ♀. *Exp.* 44 millim.

*303. *Ilema trispilota*.

Lithosia trispilota, Saalm. Ber. Senck. Ges. 1879, p. 262; id. Lep. Madag. i. p. 163, pl. 6. f. 84; Kirby, Cat. Het. p. 318.

Dull white; palpi and legs tinged with fuscous. Fore wing with small black spots on costa and inner margin just beyond middle; a subterminal spot in discal fold; vein 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12.

Hab. MADAGASCAR, Coll. Mabille. *Exp.*, ♂ 30, ♀ 36 millim.

*304. *Ilema eningæ*. (Plate XXII. fig. 17.)

Gnophria eningæ, Plotz, Stett. ent. Zeit. xli. p. 80 (1880); Kirby, Cat. Het. p. 318.

♂. White tinged with brownish grey; abdomen tinged with fulvous. Fore wing with prominent postmedial black spots below costa and in submedian fold. Hind wing whiter, the inner margin slightly yellowish.

Fore wing with veins 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. CAMEROONS, Mus. Stockholm. *Exp.* 40 millim.

305. *Ilema pallida*. (Plate XXII. fig. 5.)

Cossa pallida, Moore, P. Z. S. 1878, p. 21; Humpson. Moths Ind. ii. p. 83; Kirby, Cat. Het. p. 332.

♂. Brownish grey; abdomen orange at extremity and below. Fore wing with prominent antemedial and postmedial black spots on costa; a black point at lower angle of cell and another at middle of submedian fold; the basal half of costal area whitish. Hind wing ochreous.

♀. Fore wing without the antemedial spot on costa.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. N.W. HIMALAYAS, Dalhousie (*Harford*), 2 ♂, 1 ♀, Dharmasila (*Hocking*), 7 ♂, 2 ♀. *Exp.*, ♂ 32, ♀ 36 millim.

306. *Ilema bipuncta*.

Bombyx bipuncta, Hübn. Eur. Schmett. ii. ff. 286, 287 (1827); Kirby, Cat. Het. p. 321.

Lithosia colon, Möschl. Stett. ent. Zeit. 1872, p. 353; Hmps. Moths Ind. ii. p. 82; Kirby, Cat. Het. p. 318.

Head, tegulæ, and abdomen orange-yellow; thorax yellow-brown. Fore wing brownish yellow suffused with fuscous, leaving the base of inner margin and the costal area yellow; two black spots just beyond middle, one on costa, the other in submedian fold. Hind wing pale orange-yellow.

Fore wing with vein 6 from just below angle of cell or very shortly stalked with 7, 8, 9; 10 free; 11 anastomosing with 12.

Hab. ANDALUSIA, Chiclana, 1 ♀ in Coll. Staudinger; NATAL, Estecourt (*Hutchinson*), 1 ♂, 1 ♀; CAPE COLONY, Annshaw (*Miss Barrett*), 1 ♂, 1 ♀. *Exp.* 36 millim. Type† *colon* in Coll. Staudinger from Natal (*not* Silhet).

307. *Ilema insignis*. (Plate XXII. fig. 6.)

Prahasa insignis, Butl. Cist. Ent. iii. p. 8 (1882); Kirby, Cat. Het. p. 320.

♂. Pale yellow; palpi, frons, and legs blackish; extremity of abdomen and fore wing deeper yellow. Fore wing irrorated with a very few black scales; the costal edge black towards base; the inner and terminal areas very slightly tinged with rufous; a large black spot on costa beyond middle, and a subterminal point below vein 6.

Fore wing with vein 6 from the areole which is formed by 9 arising from 10 and anastomosing with 8; 11 free.

Hab. MADAGASCAR, Betsileo (*Cowan*), 1 ♂ type. *Exp.* 28 millim.

*308. *Ilema quadrisignata*.

Cossa quadrisignata, Moore, P. Z. S. 1878, p. 21, pl. 2. f. 10 (1878); Hmps. Moths Ind. ii. p. 83; Kirby, Cat. Het. p. 332.

♂. Head and thorax brown with a purplish tinge; abdomen grey-brown. Fore wing pale, very thickly irrorated and suffused with purplish fuscous; the basal two-thirds of costal area pale, with prominent black spots before and just after middle. Hind wing pale brownish.

Hab. SIKHIM (*Atkinson*), type† ♂ in Coll. Staudinger. *Exp.* 32 millim.

*309. *Ilema costipuncta*. (Plate XXII. fig. 19.)

Lithosia costipuncta, Leech, Entom. xxiii. p. 82 (1890); Kirby, Cat. Het. p. 326.

♂. Deep orange; palpi at tips, antennæ, and the greater part of legs black. Fore wing with small round black spot just below costa immediately beyond middle.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 7 from the areole; 11 free.

Hab. C. CHINA, Chang-yang, 1 ♂, type† in Coll. Leech. *Exp.* 40 millim.

310. *Ilema basigera*.

Cossu basigera, Wlk. xxxi 233 (1864); *Himpsn. Moths Ind.* ii. p. 83; Kirby, *Cat. Het.* p. 332.

Cossu basigera, Swinh. P. Z. S. 1889, p. 403 (1890); *Himpsn. Ill. Het.* viii. p. 4, pl. 143, f. 8; Kirby, *Cat. Het.* p. 333.

♂. Greyish fuscous; palpi except at tips, and lower part of frons orange-red; legs orange-red and fuscous; abdomen yellow, grey towards base, the terminal segments fuscous, the anal tuft and ventral surface orange-red. Fore wing with the basal half of costal area pure white, with a black fascia on costa to its middle; a diffused medial blackish band oblique from costa to submedian fold, where it is acutely angled; traces of an irregularly sinuous subterminal band. Hind wing orange-yellow, the cilia reddish. Underside of fore wing fuscous, with the costa except towards base and the terminal area orange-red; hind wing with broad fuscous fascia below the costa which is orange-red.

♀. Fore wing with the angle of medial band conjoined to the basal dark patch on costa, the area between it and subterminal band fuscous; underside with orange-yellow replacing the red.

Fore wing with veins 6, 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. NILGIRIS (*Walhouse*), 1 ♂ type, (*Hampson*) 1 ♂, 5 ♀, type *ruma*. *Exp.* 32-40 millim.

311. *Ilema elegans*. (Plate XXII. fig. 7.)

Dyphlebia elegans, Butl. *Trans. Ent. Soc.* 1877, p. 347; Kirby, *Cat. Het.* p. 313.

♂. Head, thorax, and abdomen orange; lower part of frons and antennæ black; legs black, fore and mid legs striped with orange; hind tibiæ and tarsi orange. Fore wing orange; a black patch on terminal area from inner margin near base to apex, its inner edge dentate. Hind wing orange, the terminal third black, its inner edge diffused, the orange on costa almost extending to apex.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 6 from the areole, 7 from beyond it; 11 anastomosing with 12.

Hab. ABYSSINIA, Atbara, 1 ♂ type. *Exp.* 26 millim.

Subsp. 1. Fore wing with the black on inner area not commencing till beyond middle; hind wing with the black on terminal area narrow except towards apex.

Hab. MASHONALAND, Salisbury (*Marshall*), 1 ♂.

*312. *Ilema xanthopa*. (Plate XXII. fig. 8.)

Lepista xanthopa, Holland, Psyche, vi. p. 411 (1893).

♂. Orange, palpi and legs tinged with fuscous; abdomen with fuscous sublateral fasciæ. Fore wing with fuscous terminal band expanded just below costa, then narrowing gradually to tornus. Hind wing paler, with the termen and cilia from apex to vein 3 fuscous.

Hab. W. AFRICA, Ogowé R., type † ♂ in Coll. Holland. *Exp.* 24 millim.

313. *Ilema apicalis*. (Plate XXII. fig. 9.)

Lithosia apicalis, Wlk. Journ. Linn. Soc., Zool. vi. p. 104 (1862); Swinh. Cat. Het. Mus. Oxon. p. 127; Kirby, Cat. Het. p. 329.

♂. Head and thorax black; tegulæ black or yellow; patagia edged with yellow; abdomen grey, orange towards extremity. Fore wing yellowish grey, with a broad fuscous-black terminal band, its inner edge slightly angled; cilia yellowish. Hind wing pale yellow.

♀. Head yellow; thorax grey; fore wing pale grey; a black spot on costa just beyond middle, another in end of cell, and one in submedian fold rather nearer base.

Fore wing with vein 6 from or from below angle of cell; 7, 8, 9 stalked; 10 from cell, in one specimen shortly stalked with 7, 8, 9, the type with small areole; 11 anastomosing with 12.

Hab. W. AFRICA, Accrá (*Carter*), 1 ♂, 1 ♀, Sierra Leone (*Clements*), 1 ♂; BORNEO, Sarawak (*Wallace*), 3 ♂; PULO LAUT (*Doherty*), 1 ♂. *Exp.* 26 millim. Type † in Mus. Oxon.

314. *Ilema dorsalis*. (Plate XXII. fig. 10.)

Lithosia dorsalis, Wlk. xxxv. 1883 (1866); Swinh. Cat. Het. Mus. Oxon. p. 127; Kirby, Cat. Het. p. 329.

♂. Head and thorax black; tegulæ orange; metathorax sometimes with orange patch; legs orange and black; abdomen greyish, orange towards extremity. Fore wing yellowish grey, with a subterminal fuscous band expanding towards costa and not reaching above vein 7; the terminal third of costa and cilia orange. Hind wing grey, with terminal orange band.

Fore wing with vein 9 given off from 10 and anastomosing with 8 to form the areole; 6 from areole, 7 from beyond it; 11 anastomosing with 12.

Hab. SULA (*Wallace*), 1 ♂ type † in Mus. Oxon.; N. AUSTRALIA, Port Darwin (*J. J. Walker*), 1 ♂; LOUISIADES, St. Aignan (*Meek*), 1 ♂. *Exp.* 28–34 millim.

*315. *Ilema terminalis*.

Katha terminalis, Moore, P. Z. S. 1878, p. 17, pl. i. f. 14; Hmps. Moths Ind. ii. p. 85; Kirby, Cat. Het. p. 329.

Katha semifusca, Elwes, P. Z. S. 1890, p. 388, pl. 32. f. 9; Kirby, Cat. Het. p. 329.

♂. Head and thorax black; tegulæ grey; patagia fringed with grey; abdomen grey, with the terminal segments ochreous. Fore wing yellowish grey, with a broad black subterminal band not quite reaching costa. Hind wing pale yellow.

Fore wing with veins 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Ab. 1. *semifusca*. Fore wing with the subterminal band diffused inwards to end of cell.

Hab. SIKHIM, type † in Coll. Staudinger, type † *semifusca* in Coll. Elwes. *Exp.* 34 millim.

316. *Ilema cucullata*. (Plate XXII. fig. 11.)

Katha cucullata, Moore, P. Z. S. 1878, p. 17; Hmps. Moths Ind. ii. p. 84 Kirby, Cat. Het. p. 329.

♂. Head and thorax black; legs mostly black; abdomen dull orange, fuscous grey towards base. Fore wing whitish grey, the costal area somewhat paler, some diffused fuscous on termen, the costa towards apex and cilia yellow. Hind wing yellowish white.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 6 from areole; 11 anastomosing with 12.

Ab. 1. Fore wing thickly irrorated with fuscous; cilia fuscous at base; vein 6 from below angle of cell, 10 free.—Khásis.

Hab. ASSAM, Khásis, 1 ♂; ANDAMANS, Moore Coll., 4 ♂, type. *Exp.* 30–32 millim.

*317. *Ilema simulans*. (Plate XXII. fig. 12.)

Lithosia simulans, Mab. Bull. Soc. Zool. Fr. iii. p. 87 (1878); Kirby, Cat. Het. p. 320.

Lithosia agonecha, Plotz, Stett. ent. Zeit. xli. p. 80 (1880); Kirby, Cat. Het. p. 323.

♂. Greyish white tinged with brown; head, tegulæ, and distal half of abdomen yellowish. Fore wing with diffused fuscous on terminal area, except the costa which is yellowish; cilia yellowish. Hind wing with the terminal half yellowish.

Hab. Congo, type † ♂ in Coll. Mabille, “*Agonecha*.” *Exp.* 30 millim.

*318. *Ilema squalida*.

Lithosia squalida, Guén. Maillard, Ins. Réunion. ii. Lép. p. 23 (1864); Kirby, Cat. Het. p. 319.

♂. Yellowish grey; abdomen with the extremity yellower. Fore wing yellowish grey with a slight fleshy tinge, thickly clothed on basal two-thirds, then shining grey with a fuscous tinge. Hind wing with the basal half grey and thickly scaled, the terminal half shining grey with a fuscous tinge,

♀. Fore wing uniform grey; hind wing yellowish.

Hab. RÉUNION I. *Exp.*, ♂ 42, ♀ 44 millim. This species is unknown to me.

319. *Ilema badrana*. (Plate XXII. fig. 25.)

Lithosia badrana, Moore, Cat. Lep. E. I. C. p. 304 (1859); Kirby, Cat. Het. p. 331.

♀. Orange-yellow; fuscous spots on 3rd joint of palpi and extremity of hind femora. Fore wing with a large fuscous patch occupying the greater part of wing from before middle to terminal area, not extending to costal area, and enclosing a large yellow spot in end of cell. Hind wing pale yellow.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. JAVA (*Horsfield*), 1 ♀ type. *Exp.* 30 millim.

320. *Ilema nebulifera*, n. sp. (Plate XXII. fig. 21.)

♀. Pale yellow; abdomen fuscous, clothed with yellow hair. Fore wing with fuscous patch on inner area from middle to near tornus, extending upwards into lower angle of cell and beyond the cell to vein 7.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. SINGAPORE (*Ridley*), 1 ♀ type. *Exp.* 28 millim.

321. *Ilema fasciata*.

Capissa fasciata, Moore, P. Z. S. 1878, p. 20, pl. 2. f. 4; Lep. Ceyl. ii. p. 57, pl. 102. f. 2; Hmps. Moths Ind. ii. p. 85; Kirby, Cat. Het. p. 331.

♂. Orange; palpi with the 3rd joint black; antennæ and greater part of legs black; abdomen fuscous, clothed with yellow hair, orange towards extremity. Fore wing with fuscous-brown suffusion on inner area from near base to near termen, extending upwards into lower end of cell and beyond the cell to vein 7. Hind wing yellow.

♀. Fore wing without fuscous suffusion.

Fore wing with vein 6 from or from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12; hind wing of type with veins 3, 4 from cell on one side.

Hab. CEYLON, Moore Coll., type ♂, (*Green, Jameson*) 5 ♂, 1 ♀. *Exp.*, ♂ 32, ♀ 38 millim.

*322. *Ilema albicosta*.

Lithosia albicosta, Rogenh. Ann. Hofmus. Wien, ix. p. 45, pl. 1. f. 3 (1894).

♂. Dark fuscous brown; abdomen paler at extremity. Fore wing with broad white costal fascia expanding from upper angle of cell to termen, the basal half of costal edge black; veins 1, 2, the end of median nervure, the discocellulars, and veins 3, 4, and 6 streaked with white; the area near tornus whitish. Hind wing with the inner and terminal areas paler.

Fore wing with veins 7, 8, 9 stalked, 10 free, 11 anastomosing with 12.

Hab. CANARIES, Coll. Leech. *Exp.* 32 millim.

323. *Ilema replana*.

Phalæna replana, Lewin, Prodr. Ent. p. 16, pl. 15 (1805); Meyr. P. Linn.

Soc. N. S. W. (2) i. p. 701; Kirby, Cat. Het. p. 332.

Lithosia dispar, Leach, Zool. Miscell. i. p. 109, pl. 49. ff. 1-3 (1814).

♂. Head and thorax grey-black, an orange patch on frons, two on vertex of head; the tips of tegulæ and base of patagia and a patch on metathorax orange; legs orange and blackish; abdomen orange. Fore wing grey-black, with broad yellow fascia below costa from base to beyond middle; a diffused yellowish patch below end of cell extending almost to inner margin; cilia orange. Hind wing pale orange, with some fuscous on termen from apex to vein 2.

♀. Fore wing without the yellowish patch below end of cell.

Fore wing with vein 6 from angle of cell; 9 from 10 anastomosing with 8 to form the areole (in one male 9 stalked with 7, 8); 11 anastomosing with 12.

Hab. QUEENSLAND, Moreton Bay; N. S. WALES, Sydney (*Raynor*, *Mathew*, *Damel*). *Exp.*, ♂ 34, ♀ 34-40 millim.

324. *Ilema atratula*.

Lithosia atratula, Eversm. Bull. Mosc. 1847, iii. p. 79, pl. 5. f. 4; Herr.-Schäff. Schmett. Eur. vi. p. 53, f. 166; Kirby, Cat. Het. p. 324.

♂. Black-brown; tegulæ orange in front; anal tuft orange. Fore wing with moderately broad orange costal fascia narrowing to a point just before apex. Hind wing with narrow orange costal fascia.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 11 free.

Hab. SIBERIA, Kentei, 1 ♂. *Exp.* 28 millim.

325. *Ilema flavibasis*, n. sp. (Plate XXII. fig. 22.)

♂. Head, thorax, and abdomen orange; fore and mid legs striped with fuscous; hind legs with the extremity of femora and tibiæ and the tarsi fuscous; wings deep fuscous. Fore wing with orange fascia at base of inner margin and a costal fascia narrowing to a point before apex. Hind wing with the basal area orange.

Fore wing with vein 6 from or from below angle of cell; 9 from 10 anastomosing with 8 to form the areole, 7 from end of areole; 11 anastomosing with 12.

Hab. BR. E. AFRICA, Wasin (*G. S. Gunn*), 2 ♂, type. *Exp.* 26 millim.

326. *Ilema sarceola*, n. sp. (Plate XXII. fig. 23.)

♂. Head, thorax, and abdomen dark greyish fuscous; palpi, basal joint of antennæ, neck, stripes on legs, extremity of abdomen, and lateral and ventral stripes orange. Fore wing leaden grey; the base of inner margin and a costal fascia narrowing to apex

pinkish orange; cilia orange. Hind wing pinkish orange, the costal area fuscous, widening towards apex and diffused on termen down to vein 1; cilia orange.

Fore wing with vein 6 shortly stalked with 7, 8, 9; 10 free; 11 anastomosing with 12.

Hab. CAPE COLONY (*Mathew*), 1 ♂ type. *Exp.* 26 millim.

327. *Ilema arculifera*.

Eucraagra arculifera, Feld. Reis. Nov. pl. 106. f. 33 (1874); Kirby, Cat. Het. p. 342.

♂. Head, thorax, and abdomen black; tegulae and patagia edged with orange; abdomen with the extremity, lateral fasciae, and ventral bands orange. Fore wing orange, with diffused fuscous black fascia from base below costa expanding towards termen, on which it extends down to vein 2; a fascia on vein 1 narrowing to termen. Hind wing with the base fuscous black, emitting streaks below costa, on median nervure, and inner area.

Fore wing with vein 6 stalked with 7, 8, 9; 10 free; 11 anastomosing with 12.

Hab. CAPE COLONY, Annshaw (*Miss F. Barrett*), 2 ♂. *Exp.* 26 millim.

Subsp. 1. Fore wing with the subcostal black fascia almost obsolete on upperside, the fascia on inner area reduced to a short basal streak; hind wing with the black much reduced.

Hab. NATAL, Karkloof (*Marshall*), 1 ♂.

328. *Ilema chrysophleps*.

Lithosia chrysophleps, Hmps. Trans. Ent. Soc. 1895, p. 294; id. Moths Ind. iv. p. 495; Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 10.

♀. Head black, the back of vertex orange; thorax fuscous, the tegulae and base of patagia tinged with orange; pectus and legs black; abdomen fuscous, tinged with orange towards base, the anal tuft orange; the ventral surface black. Fore wing fuscous, the veins streaked with orange; the costal area tinged with orange. Hind wing orange. Underside of fore wing fuscous, with the veins and broad marginal areas orange.

Fore wing with veins 3, 4 from cell; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, the latter curved.

Hab. BHUTÁN (*Dudgeon*), 1 ♀ type. *Exp.* 42 millim.

329. *Ilema prabana*.

Lithosia prabana, Moore, Cat. Lep. E. I. C. p. 304 (1859); Swinh. Cat. Het. Mus. Oxon. p. 124; Kirby, Cat. Het. p. 325.

Lithosia nigricans, Wlk. Journ. Linn. Soc., Zool. vi. p. 103 (1862); Kirby, Cat. Het. p. 327.

Lithosia lurida, Snell, Tijds. v. Ent. xxiii. p. 84, pl. 7. f. 7 (1879); Kirby, Cat. Het. p. 316.

Dark fuscous brown; vertex of head yellowish white; ventral

surface of abdomen yellowish. Fore wing with the costal area and cilia yellow or yellowish white, the basal half of costal edge streaked with black.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. SULA: BORNEO, Sarawak, type † *nigricans* in Mus. Oxon.; SUMATRA, 1 ♂; JAVA (*Horsfield*), 1 ♂, 1 ♀, type; BALI (*Doherty*), 2 ♂; CELEBES, type † *lurida* in Coll. Snellen. *Exp.* 20–24 millim.

330. *Ilema fumidisca*. (Plate XXII. fig. 24.)

Lithosia fumidisca, Hmps. Moths Ind. ii. p. 80 (1894).

Head, tegulæ, and outer half of patagia pale yellow, palpi with lateral dark mark at extremity; inner half of patagia and thorax dark fuscous brown; abdomen fuscous, yellow towards extremity and below. Fore wing dark fuscous brown, with broad costal yellow fascia of even width throughout and terminal yellow band. Hind wing yellow.

Fore wing with vein 6 from angle of cell or from 7, 8, 9, which are stalked; 10 free; 11 anastomosing with 12 or free.

Hab. CHINA, Shanghai, Zika-wei, 1 ♀; SIKHIM; BURMA, Tenasserim Valley (*Doherty*), 1 ♀, type † in Coll. Druce. *Exp.* 24 millim.

331. *Ilema complana*.

Noctua complana, Linn. Syst. Nat. i. p. 512 (1758); Godart, Léop. Fr. v. p. 16, pl. 41. f. 5; Dup. Léop. Fr., Suppl. iii. p. 15, pl. 1. f. 5; Staud. Cat. p. 54; Kirby, Cat. Het. p. 323.

Lithosia complanata, Costa, Faun. Nap., Lep. Nott. p. 27 (1833).

Head, tegulæ, and base of patagia orange; antennæ fuscous except towards base, thorax grey; abdomen whitish, the terminal half orange. Fore wing with moderately broad orange costal fascia of even width throughout; costal edge black towards base; cilia yellow at tips. Hind wing pale yellow. Underside of fore wing with terminal yellow band; hind wing with some grey on basal half of costal area.

Fore wing with vein 6 from angle of cell; 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12.

Hab. CENTRAL and S. EUROPE, Zell. & Frey Colls.; BITHYNIA. *Exp.* 26–36 millim.

Larva, Meyr. Brit. Lep. p. 27; Barrett, Lep. Brit. ii. p. 221, pl. 67. f. 5.

Blackish grey or brown; hairs short, brown; dorsal line black, the subdorsal forming a series of oval orange-red and white spots; spiracular line rather broad, ferruginous; head blackish. Food-plant, Lichens; 8–6.

332. *Ilema morosina*.

Lithosia morosina, Herr.-Schäff. Schmett. Eur. ii. p. 159, ff. 54–56 (1846);

Staud. Cat. p. 54; Kirby, Cat. Het. p. 323.

Lithosia costalis, Zell. Isis, 1817, p. 16.

♀. Head orange-brown; thorax and abdomen brown, the latter with last three segments orange; legs orange. Fore wing grey-brown, with narrow orange costal fascia of even width throughout; a fine yellow streak on inner margin. Hind wing pale yellow. Underside of fore wing with the inner and terminal areas whitish.

Fore wing with vein 6 from angle of cell; 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12.

Hab. ASIA MINOR, 1 ♀, Zell. Coll. *Exp.* 40 millim.

333. *Ilema vicaria*.

Lithosia vicaria, Wlk. ii. 505 (1854); Kirby, Cat. Het. p. 223.

Lithosia antica, Wlk. ii. 505 (1854); Moore, P. Z. S. 1878, p. 15, pl. 1. f. 9; id. Lep. Ceyl. ii. p. 56, pl. 102. f. 3; Hmps. Moths Ind. ii. p. 79; Kirby, Cat. Het. p. 325.

Lithosia natara, Moore, Cat. Lep. E. I. C. p. 304 (1859); Kirby, Cat. Het. p. 325.

Lithosia sarawaka, Butl. Trans. Ent. Soc. 1877, p. 350; Kirby, Cat. Het. p. 325.

Lithosia imitans, Mab. Bull. Soc. Zool. Fr. iii. p. 87 (1878).



Fig. 93.—*Ilema vicaria*, ♂. 1.
(From Moths Ind. vol. ii.)

Head, tegulae, and base of patagia orange; palpi at tips and antennae black; thorax and legs leaden grey; abdomen grey, the extremity and ventral surface orange. Fore wing leaden grey, with orange-yellow costal fascia, tapering slightly to apex or of even

width throughout; cilia yellow. Hind wing pale yellow.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked, or 9 from 10 anastomosing with 8 to form a small areole; 11 anastomosing with 12.

Hab. W. AFRICA, Old Calabar (*Miss Kingsley*), 1 ♀; Congo (*Curror*), 1 ♀ type; NATAL, Durban (*Bowker*), 1 ♀; AMUR, 1 ♀; CHINA, Hongkong (*J. J. Walker*), 1 ♀; SIKHIM; ASSAM, Khâsis; CALCUTTA, Moore Coll., 1 ♀; CEYLON (*Templeton*), type *antica*, (*E. E. Green*); ANDAMANS; BORNEO, Sarawak (*Wallace*), type *sarawaka*; JAVA (*Horsfield*), type *natara*. *Exp.* 26–34 millim. Type ♂ *imitans* in Coll. Mabille.

334. *Ilema sericea*.

Lithosia sericea, Gregson, Ent. Weekly Int. ix. p. 31 (1860); Barrett, Lep.

Brit. ii. p. 222, pl. 67. f. 5 a; Staud. Cat. p. 54; Kirby, Cat. Het. p. 324.

Lithosia molybdeola, Guen. Ann. Soc. Ent. Fr. (4) i. p. 50 (1861).

Head, tegulae, and base of patagia orange; thorax and abdomen dark grey, the latter with lateral streaks towards extremity and the anal tuft orange; legs orange and grey. Fore wing dark grey, with rather narrow orange costal fascia of even width throughout; the costa black towards base; cilia orange at tips. Hind wing pale yellow, with diffused grey patch on costal area extending to near apex.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole, 6 from areole, 11 anastomosing with 12.

Hab. BRITAIN, Cheshire, Lancashire, Zell. & Frey Colls. *Exp.* 34 millim.

Larva, Meyrick, Brit. Lep. p. 27.

Blackish grey, hairs short, brown; dorsal line black; subdorsal interrupted, orange-red, white-spotted; lateral line black; spiracular line ferruginous, black-edged; head black. On lichens, dead leaves, &c.; 8-5.

335. *Ilema gracillipennis*. (Plate XXII. fig. 20.)

Lithosia gracillipennis, Wlgrn. Wien. ent. Mon. iv. p. 45 (1860); Kirby, Cat. Het. p. 327.

Mamecla planissimata, Wlgrn. Öfv. Vet.-Akad. Förh. xxxii. (1) p. 100 (1876); Kirby, Cat. Het. p. 327.

♂. Head and tegulæ orange-yellow; thorax grey; legs striped with black; abdomen orange, greyish towards base. Fore wing grey; the costa orange, becoming whitish towards subcostal nervure; a black streak on base of costa; cilia orange-yellow. Hind wing pale orange-yellow, slightly suffused with fuscous towards costal half.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole, 6 from the areole, 7 from end of it; 11 anastomosing with 12.

Hab. TRANSVAAL; NATAL, Estcourt (*Hutchinson*), 1 ♂. *Exp.* 36 millim. Type† in Mus. Stockholm.

*336. *Ilema debilis*.

Lithosia debilis, Stgr. Rom. Mém., Léop. iii. p. 190, pl. 10. f. 12 (1887); Kirby, Cat. Het. p. 323.

♂. Head, thorax, and abdomen black; tegulæ, anal tuft, and streaks on fore coxæ and tibiæ orange-yellow. Fore wing brownish fuscous, with orange-yellow costal fascia attenuated to a point at apex; cilia yellow at tips. Hind wing pale orange-yellow, with slight fuscous suffusion on costal area to median nervure, then obliquely from lower angle of cell to apex.

Fore wing with vein 6 from angle of cell, or shortly stalked with 7, 8, 9; 11 anastomosing with 12.

Hab. SIBERIA, Irkutsk, type† ♂ in Coll. Staudinger. *Exp.* 30 millim.

337. *Ilema sokotrensis*, n. sp. (Plate XXII. fig. 26.)

♀. Head, thorax, and abdomen grey; the extremity of abdomen yellow; legs towards base and ventral surface of abdomen whitish. Fore wing grey; a moderately broad whitish costal fascia attenuated to a point at two-thirds from base. Hind wing ochreous yellow, the apical area suffused with fuscous.

Fore wing with veins 7, 8, 9 stalked; 11 anastomosing with 12 in one specimen vein 6 bifurcates, and in another 7 is given off; beyond 9.

Hab. SOKOTRA, Adho Dimellus, 3500 feet (W. R. O. Grant), 3 ♀, type. *Exp.* 30 millim.

338. *Ilema lurideola*.

Lithosia lurideola, Zink. Allgem. Literaturzeitung, 1817, p. 68; Fisch.

Rössl. Abh. Schmett. p. 106, pl. 42. ff. 2 a-c; Hübn. Beitr. Schmett. i.

(3) p. 12, pl. 1. F (*complanata*); Esp. Schmett. iv. (1) p. 95, pl. 92. f. 7;

Staud. Cat. p. 54; Kirby, Cat. Het. p. 323.

Lithosia complanula, Boisd. Icones Léop. ii. p. 97; Dup. Léop. Fr., Suppl.

iii. p. 15, pl. 1. f. 4.

Lithosia plumbeola, Herr.-Schäff. Schmett. Eur. ii. p. 158 (1847).

Cinereous grey; head and tegulae in front yellow; palpi fuscous at tips; antennae fuscous; legs striped with grey; anal tuft orange-yellow. Fore wing with costal orange fascia becoming whitish towards cell and suddenly narrowing to a point just before apex; the costal edge blackish towards base; cilia yellowish. Hind wing pale yellow. Underside of fore wing with broad orange terminal band.

Fore wing with vein 6 from angle of cell or shortly stalked with 7, 8, 9; 9 often arising from cell or vein 10 and anastomosing with 8 to form a small areole.

Hab. BRITAIN; FRANCE; GERMANY, Zell. Coll.; SWITZERLAND, Frey Coll.; N. ITALY; LIVONIA; BITHYNIA; ARMENIA. *Exp.* 32-40 millim.

Larva, Meyr. Brit. Lep. p. 26; Barrett, Lep. Brit. ii. p. 224, pl. 67. f. 6.

Very dark grey; hairs black and yellowish; dorsal and subdorsal lines black; spiracular line orange; head black. Food-plants, *Quercus*, *Rhamnus*, &c.; 8-6.

339. *Ilema harpophora*. (Plate XXII. fig. 27.)

Brunia harpophora, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 701 (1886);

Kirby, Cat. Het. p. 332.

Tigrioides xanthopleura, Turner, Trans. R. Soc. S. Austr. 1899, p. 10.

♀. Head, base of tegulae, and shoulders orange-yellow; antennae and a patch on vertex of head fuscous; thorax fuscous; legs yellow, the fore and mid tibiae and tarsi fuscous above; abdomen fuscous, orange-yellow at sides and below. Fore wing fuscous grey; a rather narrow orange-yellow costal fascia attenuated to a point just before apex; a short streak at base of inner margin; cilia, hind wing, and the terminal area of fore wing on underside yellow.

Hab. QUEENSLAND, Brisbane (*Lucas*), type † ♀ in Coll. Meyrick, (*Turner*) 1 ♀. *Exp.* 34 millim. Type † *xanthopleura* in Coll. Turner.

*340. *Ilema stevensi*. (Plate XXII. fig. 28.)

Sozusa stevensi, Holl. Ent. xxv. Suppl. p. 91 (1892); id. P. U. S. Nat.

Mus. viii. p. 248, pl. vii. f. 14.

♂. Ochreous white; frons and antennae black. Fore wing with

narrow black costal fascia. Hind wing whiter. Underside of fore wing tinged with fuscous.

Fore wing with veins 7, 8, 9 stalked; 10, 11 free.

Hab. E. AFRICA, Kilimanjaro, type ♂ in U. S. Nat. Mus. *Exp.* 44 millim.

This species is unknown to me; figured from a drawing sent by Prof. Dyar.

341. *Ilema coreana*.

Lithosia coreana, Leech, P. Z. S. 1888, p. 600, pl. 30. f. 13 (1889); Kirby, Cat. Het. p. 326.

Head and shoulders pale orange-yellow; palpi at tips and antennæ fuscous; thorax grey-brown; abdomen orange-yellow, grey on basal half of dorsum. Fore wing grey-brown, with moderately broad orange-yellow costal fascia attenuated to a point towards apex; cilia yellow. Hind wing yellow, more or less strongly tinged with fuscous, the cilia yellow.

Hab. COREA, Gensan, type ♀ in Coll. Leech; JAPAN, Tsu-shima (*Fenton*), 1 ♀, Tokio (*Lewis*), 1 ♀. *Exp.* 30 millim.

342. *Ilema japonica*.

Lithosia japonica, Leech, P. Z. S. 1888, p. 600, pl. 30. f. 12 (1889); Kirby, Cat. Het. p. 326.

Fuscous grey; head in front and above, base of tegulæ, shoulders, and anal tuft yellow. Fore wing with yellow costal fascia widening somewhat towards base and attenuate to a point before apex; cilia yellow at tips. Hind wing with the cilia yellow.

Hab. JAPAN (*Jonas*), 1 ♂, type ♀ in Coll. Leech. *Exp.* 30 millim.

343. *Ilema griseola*.

Bombyx griseola, Hübn. Eur. Schmett. ii. f. 97 (1827); Dup. Léop. Fr., Suppl. iii. p. 26, pl. 2. f. 3; Steph. Ill. Brit. Ent., Haust. ii. p. 147; Bois-d. Icones Léop. ii. p. 95, pl. 57. f. 5; Hmps. Moths Ind. ii. p. 80; Staud. Cat. p. 53; Kirby, Cat. Het. p. 322.

Lithosia flava, Haw. Lep. Brit. p. 147 (1809); Wood, Ind. Ent. p. 29, pl. 8. f. 99.

Lithosia stramineola, Doubl. Zool. v. p. 1914.

Lithosia plumbeolata, Steph. Ill. Brit. Ent., Haust. ii. p. 96 (1829).

Lithosia sericea, Wlk. ii. 506 (1854); Moore, P. Z. S. 1878, p. 15, pl. 1. f. 7; Kirby, Cat. Het. p. 327.

Lithosia vetusta, Wlk. ii. 506 (1854); Kirby, Cat. Het. p. 324.

Lithosia agrola, Butl. A. M. N. H. (4) xx. p. 397 (1877); Kirby, Cat. Het. p. 323.

Lithosia adaucta, Butl. A. M. N. H. (4) xx. p. 398 (1877); Kirby, Cat. Het. p. 323.

Collita lilacina, Moore, P. Z. S. 1878, p. 16; Kirby, Cat. Het. p. 324.

Lithosia cinerea, Ponj. Bull. Soc. Ent. Fr. (6) vi. p. cl (1886); Kirby, Cat. Het. p. 322.

Lithosia lenta, Leech, Ent. xxiii. p. 81 (1890); Kirby, Cat. Het. p. 326.

Lepista subumbrata, Holland, Psyche, vi. p. 411 (1893).

Lithosia fuscicilia, Hmps. Moths Ind. ii. p. 80 (1894).

Pale cinereous grey; head pale yellow; tegulæ edged with

yellow; legs partly yellow; abdomen yellowish towards extremity. Fore wing with costal yellow fascia usually very narrow, sometimes broader towards base; costal edge black towards base; cilia often yellow at tips. Hind wing yellowish grey, the termen and cilia yellow.

Fore wing with veins 3, 4 rather shortly stalked; 6 from below angle of cell or stalked with 7, 8, 9; 10 free or stalked with 7, 8, 9, or 9 from 10 anastomosing with 8 to form the areole; 11 anastomosing with 12.

Ab. 1. *serva*. Hind wing pale yellow.—Japan, Nepal, Borneo.

Ab. 2. *flava*. Almost uniform pale ochreous.—England.

Hab. BRITAIN; FRANCE; GERMANY, Zell. Coll.; SWITZERLAND, Frey Coll.; ITALY; FINLAND; URALS; ALTAI; AMUR; JAPAN (*Pryer*, *Jonas*), types *ægrola*, *adaucta*; N. CHINA (*Fortune*), 2 ♂, 2 ♀, type *vetusta*; TIBET; NEPAL (*Hardwicke*), 1 ♂, 1 ♀, type *serva*; SIKHIM; MANIPUR, type † *fuscicilia* in Coll. Elwes; YUNNAN (*Anderson*), 1 ♂, type *lilacina*; BORNEO, Sarawak (*Wallace*), 1 ♂; W. AFRICA, Ogové R., 1 ♀, co-type *subumbrata*, type † ♂ in Coll. Holland. *Exp.* 28–38 millim. Type † *lenta* in Coll. Leech.

Larva, Meyrick, Brit. Lep. p. 28; Barrett, Lep. Brit. ii. p. 226, pl. 67. f. 1.

Blackish brown; hairs dark brown; dorsal line black; subdorsal line orange-yellow, interrupted, enlarged, and partly confluent on somites 1, 2, and 12, otherwise rather faint; head shining black. Food-plants, Lichens and dead leaves; 8–6.

344. *Ilema xanthocraspis*, n. n. (Plate XXII. fig. 30.)

Lithosia nigripars, Hmps. Moths Ind. ii. p. 81, nec Wlk.

Yellowish white; abdomen fuscous, clothed with white hair, the extremity orange. Fore wing with the costa and base of cilia orange; the underside suffused with fuscous.

Fore wing with vein 6 from below angle of cell; 7, 8, 9 stalked; 10, 11 free.

Hab. SIKHIM, (*Pilcher*) 1 ♂ type, (*Lidderdale*) 2 ♀. *Exp.* 32 millim.

345. *Ilema caniola*.

Bombyx caniola, Hübn. Eur. Schmett. ii. f. 220 (1827); Godt. & Dup. Lép. Fr. v. p. 18, & Suppl. iii. p. 22, pl. 2. f. 1; Boisd. Icones, ii. p. 99, pl. 57. f. 8; Ramb. Cat. Lep. And. p. 206; Stgr. Cat. p. 54; Kirby, Cat. Het. p. 330.

Bombyx albeola, Hübn. Eur. Schmett. ii. ff. 284, 285 (1827).

Lithosia lacteola, Boisd. Icones, ii. p. 100, pl. 58. f. 4 (1834); Dup. Lép. Fr. iii. p. 38, pl. 3. f. 3.

Lithosia vitellina, Boisd. Icones, ii. p. 105, pl. 57. f. 10 (1834).

? *Lithosia uniola*, Ramb. Cat. Lep. And. p. 209 (1866); Stgr. Cat. p. 54; Kirby, Cat. Het. p. 330.

Lithosia caniola, var. *complanoides*, Fuchs, JB. Nass. Ver. xlv. p. 88 (1891).

Head and tegulae orange; antennae fuscous; thorax and abdomen fuscous; legs tinged with orange; anal tuft orange. Fore wing

grey, with narrow orange costal fascia, the basal half of costal edge blackish. Hind wing white, the costal area tinged with grey; cilia of both wings yellowish. Underside of fore wing with the terminal area suffused with yellowish white.

Ab. 1. *albeola*. Paler and whitish, the orange markings yellowish.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked, in one specimen 7 from beyond 9 on right side; 10 free.

Hab. S. BRITAIN; FRANCE; AUSTRIA, Frey Coll.; SPAIN; ITALY; SICILY, Zell. Coll.; RUSSIA. *Exp.* 32 millim.

Rambur describes his *uniola* as having an areole and the ♂ with claspers different from *caniola*.

Larva, Meyr. Brit. Lep. p. 28; Barrett, Lep. Brit. ii. p. 219, pl. 67. f. 4.

Grey or brown; hairs brown; dorsal line black; subdorsal line orange-red, black-edged, sometimes marked with white dots; head dark brown. Food-plants, Lichens and flowers of *Lotus*; 8-6.

346. *Ilema basinota*.

Lithosia basinota, Moore, P. Z. S. 1865, p. 798, 1878, p. 14, pl. 1. f. 16; Hmps. Moths Ind. ii. p. 90; Kirby, Cat. Het. p. 322.

Head and thorax dark brown mixed with ochreous; abdomen grey, yellowish towards extremity. Fore wing dark brown irrorated



Fig. 94.—*Ilema basinota*, ♂. 1. (From Moths Ind. vol. ii.)

with grey: a grey spot at base of inner margin. Hind wing whitish tinged with brown, especially towards costa, the basal costal area slightly reddish in male.

Fore wing with veins 3, 4 from cell or very shortly stalked; 6 from angle or areole; 7 from or from beyond areole.

Hab. SIKHIM, Moore Coll. (*Pilcher*), 3 ♂, 2 ♀. *Exp.* 52-54 millim.

Subsp. 1. *lurida*, Butl. Ill. Het. vii. p. 34, pl. 122. f. 10; Kirby, Cat. Het. p. 322.

Smaller; hind wing paler, the basal half of costal area in male prominently rufous.

Hab. N.W. HIMALAYAS, Dalhousie (*Harford*), Kangra (*Hocking*), type. *Exp.* 44-48 millim.

347. *Ilema pulvereola*, n. sp. (Plate XXII. fig. 29.)

♂. Grey-brown; frons blackish. Fore wing irrorated with

dark brown scales, especially at base of inner area and on terminal area. Hind wing paler.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. S.E. BORNEO (*Doherty*), 1 ♂ type. *Exp.* 24 millim.

348. *Ilema monochroma*. (Plate XXIII. fig. 2.)

Lepista monochroma, Holl. Psyche, vi. p. 411 (1893).

Yellowish grey; thorax and abdomen tinged with fuscous. Fore wing strongly irrorated with brown; an indistinct dark discoidal point. Hind wing with the costal area tinged with brown.

Hab. SIERRA LEONE (*Clements*), 1 ♀; OGOWÉ R., type ♂ in Coll. Holland; CAPE COLONY, Annshaw (*Miss F. Barrett*), 1 ♂. *Exp.* 24 millim.

349. *Ilema mauritia*. (Plate XXIII. fig. 3.)

Lithosia mauritia, Mab. Bull. Soc. Ent. Fr. 1899, p. 220.

♀. Grey-brown; abdomen grey. Fore wing with the inner area darker; the veins streaked with darker brown. Hind wing yellowish.

Fore wing with veins 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. MAURITIUS, 1 ♀. *Exp.* 36 millim. Type ♂ ♀ in Coll. Mabile.

350. *Ilema flavociliata*.

Lithosia flavociliata, Led. Verh. zool.-bot. Ges. Wien, iii. p. 364, pl. 2. f. 3 (1853); Kirby, Cat. Het. p. 324.

Lithosia ochraceola, Brem. Lep. Ost-Sib. p. 37, pl. 4. f. 2 (1864); Kirby, Cat. Het. p. 324.

♂. Head and thorax orange-yellow; antennæ blackish except towards base; abdomen orange-yellow, greyish towards base. Fore wing orange-yellow, the basal third of costal edge black. Hind wing dark fuscous; the inner area yellowish; the cilia orange-yellow. Underside fuscous, with the margins and cilia yellow; fore wing with the basal half of costa dark, with subcostal yellow streak.

Ab. 1. *ochraceola*. Hind wing with the inner area dark.

Ab. 2. *infuscat*, Stgr. MS. Fore wing with slight fuscous suffusion on terminal area.

Hab. ALTAI, type ♂ in Coll. Staudinger; AMUR, 2 ♂, 1 ♀. *Exp.* 28-30 millim.

351. *Ilema discifera*, n. sp. (Plate XXIII. fig. 4.)

♂. Pale reddish brown. Fore wing with obscure spot formed by fuscous scales on discocellulars; the submedian fold with a few dark scales in it. Hind wing paler and yellowish towards termen.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. NATAL, Karkloof (*Marshall*), 1 ♂ type. *Exp.* 30 millim.

352. *Ilema punctifera*.

Katha punctifera, Hmps. Ill. Het. B. M. ix. p. 80, pl. 158. f. 21 (1893);
id. Moths Ind. ii. p. 83.

♂. Head, thorax, and fore wing red-brown, the last with black discoidal point; abdomen and hind wing dull yellow, the former grey towards base.

♀ without the black discoidal spot.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10, 11 free.

Hab. CEYLON, Nawalapittia (*Green*), 1 ♂ type, (*Mrs. Lindesay*)
1 ♀. *Exp.* 20 millim.

353. *Ilema fraterna*. (Plate XXIII. fig. 5.)

Katha fraterna, Butl. A. M. N. H. (5) xix. p. 220 (1887); Kirby, Cat. Het. p. 329.

Head, tegulae, and outer side of patagia orange; antennæ, greater part of patagia, and streaks on legs fuscous; abdomen orange, greyish towards base. Fore wing orange, suffused with purplish grey except on costal area. Hind wing orange.

Fore wing with vein 6 from angle of cell; 9 from 10 anastomosing with 8 to form the areole.

Hab. SOLOMONS, Guadalcanar (*Woodford*), 1 ♂, 1 ♀ type. *Exp.* 30 millim.

354. *Ilema brevipennis*.

Lithosia brevipennis, Wlk. ii. 509 (1854); Moore, Lep. Ceyl. ii. p. 56, pl. 102. f. 4; Hmps. Ill. Het. B. M. viii. pl. 139. f. 11; Moths Ind. ii. p. 82, ♀; Kirby, Cat. Het. p. 329.

Lithosia intermixta, Wlk. xxxi. 229 (1864); Hmps. Ill. Het. ix. pl. 158. f. 1; Moths Ind. ii. p. 84; Kirby, Cat. Het. p. 329.

Katha punctifera, Hmps. Ill. Het. B. M. ix. p. 80, pl. 158. f. 22, ♀ (1893).
Systropha fuscipes, Hmps. Ill. Het. B. M. ix. p. 80, pl. 158. f. 23 (1893);
Moths Ind. ii. p. 83.

♂. Head fuscous; tegulae dull orange; thorax grey; tibiae and tarsi mostly fuscous; abdomen dull orange, grey towards base. Fore wing brownish grey with a yellow tinge. Hind wing yellow.

♀. Head, thorax, and fore wing uniform ochreous.

Fore wing of male with vein 6 from angle of cell, 9 from 10 anastomosing with 8 to form the areole, the cell narrow towards base; female with vein 6 from below angle; 7, 8, 9 stalked; 10 free.

Ab. 1. Fore wing of male with streak of fulvous scales below vein 1 on underside, vein 10 free.—Sandakan, 1 ♂.

Hab. E. AFRICA, Dar-es-Salaam; S. INDIA, Belgaum (*E. Y. Watson*), 1 ♂; NILGIRIS (*Hampson*), 1 ♂, 1 ♀; COIMBATORE (*Walhouse*), type *intermixta*; CEYLON (*Templeton*), type, (*Green*) 1 ♀ type *fuscipes*; BORNEO, Sandakan (*Fryer*), 2 ♂; SAMBAWA (*Doherty*), 1 ♀. *Exp.*, ♂ 26, ♀ 30 millim.

355. *Ilema palliatella*.

- Phalæna palliatella*, Scop. Ent. Carn. p. 248 (1763); Kirby, Cat. Het. p. 327.
Noctua unita, Schiff. Wien. Verz. p. 68 (1776); Hübner, Eur. Schmett. ii. f. 93; Boisd. Icones Léop. ii. p. 103, pl. 58. f. 3; Herr.-Schäff. Eur. Schmett. ii. p. 157, ff. 52, 53; Dup. Léop. Fr., Suppl. iii. p. 20, pl. 1. f. 7; Staud. Cat. p. 54.
Lithosia gilveola, Ochs. Schmett. Eur. iii. p. 137 (1810); Steph. Ill. Brit. Ent., Haust. p. 95; Dup. Léop. Fr. iii. p. 34, pl. 3. f. 1.
Bombix pallescens, Hübner, Eur. Schmett. ii. f. 221 (1827); var. *arundineola*, Guen. Ann. Soc. Ent. Fr. (4) i. p. 46 (1861).
Lithosia vitellina, Treit. Schmett. Eur. x. (1) p. 165 (1834).
Lithosia aridicola, Hering, Stett. ent. Zeit. vii. p. 233 (1844); Herr.-Schäff. Eur. Schmett. ii. p. 151, ff. 57-59.
Lithosia flavicola, Ramb. Cat. Lep. And. p. 211, pl. 2. f. 3 (1858).
Lithosia petreola, Guen. Ann. Soc. Ent. Fr. 1861, p. 46.
Lithosia beckeri, Guen. Ann. Soc. Ent. Fr. 1861, p. 47.

Head, tegulæ, and patagia orange, the last tinged with fuscous; thorax fuscous grey; pectus and legs orange, fore legs streaked with fuscous; abdomen orange, greyish towards base. Fore wing orange, slightly suffused with fuscous except the costal and terminal areas; basal half of costal edge black. Hind wing orange-yellow, the costal area suffused with fuscous. Underside of fore wing deep fuscous, with orange costal fascia and the terminal area orange; hind wing with diffused fuscous on costal area.

Ab. 1. *arideola*. Fore wing strongly suffused with fuscous except on costal and terminal areas.

Ab. 2. *flaveola*. Fore wing with hardly a trace of fuscous suffusion on upperside.

Ab. 3. *palleola*. Pale straw-yellow; fore wing with hardly a trace of fuscous suffusion on upperside.

Ab. 4. *vitellina*. Greyish white; head and tegulæ orange; abdomen orange below; fore wing with the basal half of costa fuscous, the terminal half orange; cilia orange; hind wing pale yellow or almost white; underside of fore wing fuscous except costal and terminal areas, some fuscous suffusion on costal area of hind wing.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole.

Hab. GERMANY, Zell. Coll.; HUNGARY, Frey Coll.; SPAIN; SICILY; RUSSIA. *Exp.* 24-40 millim.

Larva. Dark grey-brown; some of the longer hairs whitish, the dorsal and subdorsal lines and spiracles black. Food-plant, Lichens.

356. *Ilema lutarella*.

- Tinea lutarella*, Linn. Syst. Nat. i. p. 535 (1758); Olerck, Icones, pl. 4. f. 9; Hein. Schmett. Deutschl. i. p. 267; Staud. Cat. p. 54; Kirby, Cat. Het. p. 324.
Noctua luteola, Den. & Schiff. Syst. Verz. Lep. Wien, p. 68 (1776); Hübner, Eur. Schmett. ii. f. 92; Dup. Léop. Fr. iii. p. 28, pl. 2. f. 4; Boisd. Icones Léop. ii. p. 106, pl. 51. f. 1.
Phalæna alboflava, Retz. Gen. Spec. Ins. p. 51 (1783).
Noctua lutea, Esp. Schmett. iv. (1) p. 100, pl. 93. ff. 8, 9 (1786).
Lithosia lutea, Fabr. Ent. Syst. Suppl. p. 461 (1798).

Lithosia vitellina, Boisd. Icones, Lép. ii. p. 105, pl. 57. f. 9 (1843).

Lithosia pallifrons, Zell. Stett. ent. Zeit. viii. p. 334 (1847).

Lithosia pygmaeola, Doubl. Zool. v. p. 1914 (1847).

Lithosia nigrocincta, Spey. Geogr. Verbr. Schmett. ii. p. 285 (1862).

Lithosia marcida, Mann. Wien. ent. Mon. iii. p. 94 (1859); Kirby, Cat. Het. p. 324.

Lithosia sordidula Ramb. Cat. Lep. And. p. 210 (1866).

Bright orange-yellow; palpi at sides, frons, and antennæ below black; pectus and streaks on legs black; abdomen with the basal half fuscous, the terminal half orange. Fore wing with the costa black at base. Hind wing more or less completely suffused with fuscous except inner area and termen. Underside of fore wing black except margins; hind wing with black suffusion on costal half, and black streaks on costal and median veins.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10 free; or 9 from 10 anastomosing with 8 to form an areole; 11 anastomosing with 12.

Ab. 1. Fore wing more or less suffused with black except on costa.—Germany.

Ab. 2. *nigrocincta*. Fore wing with terminal black line.—Germany.

Ab. 3. *pallifrons*. Frons yellow; ground-colour yellow; fore wing more or less irrorated with black except on costal area.—France, Germany, Corsica, Dalmatia, Greece.

Ab. 4. *pygmaeola*. Pale straw-yellow; fore wing more or less suffused with fuscous except costal area.—England, S. coast; Holland.

Ab. 5. *marcida*. Hind wing of male rather more uniformly tinged with fuscous—Spain, Sicily.

Hab. ENGLAND; FRANCE; HOLLAND; GERMANY, Zell. & Frey Colls.; CORSICA, Zell. Coll.; SPAIN; SICILY, type† *marcida* in Coll. Staudinger; DALMATIA; GREECE; SCANDINAVIA, Zell. Coll.; RUSSIA; ARMENIA; SIBERIA. *Exp.* 22–32 millim.

Larva. Meyr. Brit. Lep. p. 27; Barrett, Lep. Brit. ii. p. 217, pl. 67. f. 3.

Brown; hairs short, brown; dorsal line black; subdorsal line dark brown; spiracular line whitish; head black. Food-plant, saline lichens; 9–6.

357. *Ilema cereola*.

Bombyx cereola, Hübn. Eur. Schmett. ii. f. 99 (1827); Herr.-Schäff.

Schmett. Eur. ii. p. 158; Staud. Cat. p. 55; Kirby, Cat. Het. p. 330.

Lithosia cinereola, Zell. Stett. ent. Zeit. viii. p. 339 (1847).

Pale orange-yellow; frons, antennæ, thorax, pectus, greater part of legs, and abdomen fuscous; a patch on metathorax and anal tufts orange. Fore wing very slightly tinged with fuscous, the costal area deeper orange. Hind wing pale yellow. Underside of fore wing suffused with fuscous except marginal areas.

Fore wing with veins 3, 4 shortly stalked or from cell; 6 stalked with 7, 8, 9; 10 free; 11 anastomosing with 12.

Hab. EASTERN ALPS, Zell. & Frey Colls.; STYRIA; NORWAY, Zell. Coll.; FINLAND; LAPLAND. *Exp.*, ♂ 32, ♀ 24 millim.

*358. *Ilema cribrata*.

Lithosia cribrata, Stgr. Rom. Mém. iii. p. 183, pl. 10. f. 11 (1837); Kirby, Cat. Het. p. 332.

♂. Pale orange-yellow; patagia with black points; fore legs tinged with fuscous in front. Fore wing with the costal edge black towards base; the interspaces irrorated with groups of a few black scales. Hind wing paler.

Fore wing with vein 6 from well below angle of cell; 7, 8, 9 stalked; 11 curved and closely approximated to 12.

Hab. AMUR, Askold, type † ♂ in Coll. Staudinger; JAPAN; C. CHINA. *Exp.* 30 millim.

359. *Ilema sororcula*.

Noctua sororcula, Hüfn. Berl. Mag. iii. p. 398 (1767); Staud. Cat. p. 55; Kirby, Cat. Het. p. 330.

Bombyx aureola, Hübn. Eur. Schmett. ii. f. 98 (1827); Steph. Ill. Brit. Ent., Haust. ii. p. 94, pl. 18. f. 1; Godt. Léop. Fr. iv. p. 394, pl. 40. f. 5.

Lithosia affineola, Brem. Lep. Ost-Sib. p. 97, pl. 8. f. 5 (1864); Kirby, Cat. Het. p. 324.

Head and thorax orange-yellow; antennæ, pectus, legs, and abdomen greyish fuscous; anal tuft orange-yellow; wings pale orange-yellow. Fore wing of male with the costal edge black towards base; the underside fuscous except marginal areas.

Fore wing with vein 6 from well below angle of cell; 7, 8, 9 stalked; 11 anastomosing with 12.

Hab. BRITAIN; FRANCE; GERMANY, Zell. & Frey Colls.; HUNGARY; SWITZERLAND; DALMATIA; DENMARK; RUSSIA; TURKEY; ARMENIA; AMUR; JAPAN, Hakodaté; TIBET, Moupin. *Exp.* 26-30 millim.

Larva, Meyr. Lep. Brit. p. 28; Barrett, Brit. Lep. ii. p. 213, pl. 67. f. 1.

Whitish or yellowish, hairs fuscous; dorsal, subdorsal, and broader lateral lines black; blackish dorsal patches on somites 3, 7, 11; a whitish patch on 8; tubercles orange-red; sides fuscous; head blackish. Food-plant, Lichens; 7-10.

360. *Ilema nigripes*, n. sp. (Plate XXIII. fig. 6.)

♂. Fulvous orange; palpi with the third joint black; antennæ and greater part of legs black; ventral surface of abdomen with black bands. Fore wing with the basal part of costa black; underside with black suffusion in cell extending as streaks beyond its angles.

♀. Fore wing without the black on costa or underside.

Fore wing with veins 3, 4 from angle of cell; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free.

Hab. SIKHIM; ASSAM, Khásis, 1 ♂, 1 ♀, type. *Exp.*, ♂ 42, ♀ 46 millim.

361. *Ilema decreta*. (Plate XXIII. fig. 7.)

Lithosia decreta, Butl. Trans. Ent. Soc. 1877, p. 351; Kirby, Cat. Het. p. 325.

Adixa monochroa, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 10.

♂. Orange-yellow; tibiæ and tarsi tinged with fuscous; abdomen greyish towards base. Hind wing pale yellow.

Ab. 1. Head, thorax, and fore wing pale yellow.—Pulo Laut.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10 free; 11 free, strongly curved.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂, type *decreta*, Pulo Laut (*Doherty*), 1 ♂ ab. QUEENSLAND, Brisbane, type † ♂ *monochroa* in Coll. Turner. *Exp.* 16–20 millim.

362. *Ilema calamaria*. (Plate XXIII. fig. 8.)

Manulea calamaria, Moore, P. Z. S. 1878, p. 18; Hampn. Moths Ind. ii. p. 79; Kirby, Cat. Het. p. 328.

Katha aprica, Butl. Cist. Ent. iii. p. 115 (1885); Kirby, Cat. Het. p. 329.

Pale straw-yellow; palpi blackish at tips; tibiæ and tarsi mostly blackish. Fore wing with the basal half of costal edge blackish. Underside of fore wing slightly suffused with fuscous, except costal and terminal areas; hind wing with some fuscous suffusion on costal area.

Ab. 1. *aprica*. More orange-yellow; fore wing without black on costa of fore wing and less suffusion on underside.

Fore wing with vein 6 from or from below angle of cell, in one specimen arising from 7 on one side; 7, 8, 9 stalked; type *aprica* with 7 from just beyond 9 on one side; 10 free, or 9 from 10 anastomosing with 8 to form the areole.

Hab. JAPAN, Tsu-shima, 1 ♀, Ohoyama (*Pryer*), 1 ♀, type *aprica*; CHINA, Shanghai, 2 ♂, 1 ♀ (*Fortune*, *Pryer*, *J. J. Walker*), Ichang (*Hobson*), 1 ♀; N.W. HIMALAYAS, Moore Coll., 3 ♂, type, Kulu, 1 ♂. *Exp.* 26–30 millim.

363. *Ilema albidula*. (Plate XXIII. fig. 19.)

Lithosia albidula, Wlk. xxi. 331 (1864); Kirby, Cat. Het. p. 325.

Head, tegulæ, and patagia orange-yellow; thorax pale yellow; legs orange tinged with fuscous; abdomen orange-yellow, pale towards base. Fore wing yellowish white, the costal edge orange. Hind wing yellowish white. Underside of fore wing and costa of hind wing orange-yellow.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12.

Hab. SIERRA LEONE (*Forcroft*), 1 ♂, type. *Exp.* 24 millim.

*364. *Ilema suffusa*. (Plate XXIII. fig. 12.)

Lithosia suffusa, Leech, Trans. Ent. Soc. 1899, p. 183.

♂. Head, thorax, and abdomen orange; palpi at tips, antennæ,

and legs on outer side tinged with fuscous. Fore wing clothed with powdery white scales; the basal third of costal area orange-yellow, with the costal edge black; the terminal area broadly suffused with orange-yellow. Hind wing pale orange-yellow. Underside of fore wing suffused with black, except the costal and terminal areas.

Fore wing with veins 6, 7 from areole; 9 from end of areole or from 10; 11 anastomosing with 12.

Hab. W. CHINA, Ta-chien-lu, type † ♂ in Coll. Leech. *Exp.* 48 millim.

365. *Ilema nigripoda*. (Plate XXIII. fig. 15.)

Lithosia nigripoda, Brem., Motsch. Ét. Ent. i. p. 63 (1852); Kirby, Cat. Het. p. 329.

Lithosia insolita, Wlk. ii. 497, ♂ (1854); Kirby, Cat. Het. p. 331.

Lithosia præcipua, Wlk. xxxi. 229, ♀ (1864); Kirby, Cat. Het. p. 329.

♂. Head and tegulæ pale yellow; third joint of palpi and antennæ black; legs mostly fuscous; abdomen pale yellow. Fore wing dull white, rather roughly scaled; the basal half of costal edge blackish; termen yellowish. Hind wing pale yellow. Underside of fore wing with the disk tinged with fuscous.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 6 from areole or angle of cell; 11 anastomosing with 12.

♀. Colour orange-yellow.

Hab. JAPAN; CHINA, Shanghai (*Fortune*), 3 ♂, 3 ♀, types *insolita* and *præcipua*. *Exp.*, ♂ 50, ♀ 54 millim.

*366. *Ilema moorei*. (Plate XXIII. fig. 21.)

Katha moorei, Leech, Ent. xxiii. p. 81 (1890); Kirby, Cat. Het. p. 329.

♂. Head, thorax, and abdomen grey-white with a fuscous tinge; palpi blackish. Fore wing clothed with powdery grey-white scales; the basal third of costal area and the terminal area broadly tinged with fuscous. Hind wing brownish white.

♀. Fore wing uniformly fuscous, overlaid with grey-white scales.

Fore wing of male with veins 6, 7, 8, 9 stalked; 11 anastomosing with 12; female with vein 6 from cell; a minute areole on left-hand side of one specimen.

Hab. CHINA, Chang-yang, type † in Coll. Leech, Ningpo, Moupin, Omei-shan, Chia-ting-fu. *Exp.*, ♂ 42, ♀ 46 millim.

367. *Ilema nigripars*.

Lithosia nigripars, Wlk. vii. 1779 (1856); Swinh. Cat. Het. Mus. Oxon. p. 122; Kirby, Cat. Het. p. 331.

Capissa pallens, Moore, P. Z. S. 1878, p. 19, pl. 2. f. 3; Hmps. Moths Ind. ii. p. 85; Kirby, Cat. Het. p. 331.

♂. Head and thorax orange-yellow; third joint of palpi, antennæ, and outer side of legs fuscous; abdomen pale yellowish. Fore wing yellowish white; costal edge black on basal half, yellow

towards apex; termen and cilia yellow. Hind wing pale yellow. Underside of fore wing and costal area of hind wing fuscous.

♀. Head and thorax whitish; fore wing without black streak on costa, or yellow on costa and termen; extremities of femora, tibiæ, and tarsal joints ringed with black.

Fore wing with vein 9 arising from 10 and anastomosing with 8 to form the areole in male; 7, 8, 9 stalked, and 10 from cell in female.

Hab. N.W. HIMALAYAS, Kangra (*Hocking*), 1 ♂, 3 ♀; SIKHIM, 1 ♂, Moore Coll. *Exp.* 42 millim. Type † in Mus. Oxon.; type † *pallens* in Coll. Staudinger.

368. *Ilema varana*.

Lithosia varana, Moore, P. Z. S. 1865, p. 797, ♂; 1878, p. 15, pl. i. f. 8;

Hmps. Moths Ind. ii. p. 79; Kirby, Cat. p. 322.

Torika nivea, Moore, P. Z. S. 1878, p. 15, ♀; Hmps. Moths Ind. ii. p. 79;

Kirby, Cat. Het. p. 322.

♂. Dull white; palpi at tips and antennæ blackish; pectus, legs, terminal half of abdomen and the ventral surface orange. Underside of fore wing suffused with fuscous. Hind wing yellowish white.

♀. Pure white; head, tegulæ, pectus, legs, extremity and ventral surface of abdomen pale yellow. Fore wing with the costa orange.

Fore wing with vein 6 from below angle of cell; 9 from 10 anastomosing with 7, 8 to form the areole.

Hab. SIKHIM (*Lidderdale*), 3 ♂, 3 ♀, Moore Coll., 3 ♂, type, 4 ♀, type *nivea*. *Exp.* 34–40 millim.

369. *Ilema degenerella*. (Plate XXIII. fig. 20.)

Rupela degenerella, Wlk. xxviii. 524 (1863).

Lithosia alba, Moore, A. M. N. H. (4) xx. p. 87 (1877); Kirby, Cat. Het. p. 322.

Systropha nivosa, Butl. A. M. N. H. (5) iv. p. 353 (1879); Kirby, Cat. Het. p. 331.

Pure white; antennæ fuscous; legs tinged with fuscous. Underside of fore wing suffused with fuscous.

Fore wing with vein 6 from angle of cell; 7, 8, 9 stalked; 10, 11 free.

Hab. JAPAN, Yokohama (*Pryer*), 1 ♂, type *nivosa*; CHINA, Shanghai, 2 ♂, type, 1 ♀, type *alba*. *Exp.* 24 millim.

370. *Ilema virgineola*, n. sp. (Plate XXIII. fig. 22.)

♀. Uniform pure white.

Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 6 from the areole, 7 from beyond it; 11 free.

Hab. CAPE COLONY, Cape Town (*Kirstenbosch*), 1 ♀, type. *Exp.* 38 millim.

Genus **HYPAGOPTERA**, nov.Type, *H. rufeola*.

Proboscis fully developed; palpi porrect, roughly scaled, not reaching beyond frons; antennæ of male with short branches ending in a long bristle, serrate towards apex; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing of male very narrow, the costa arched at middle, the apex rounded, the termen very short; vein 2 from near angle of cell, oblique; 3, 4 on a very long stalk; 5 absent; 6 from below upper angle; 7, 8, 9 stalked; 10 from cell, curved; 11 anastomosing with 12; a costal fold extending to beyond middle of wing. Hind wing very ample; vein 2 from long before angle of cell; 3, 4 strongly stalked; 5 absent; 6 from just below upper angle; 8 from middle of cell.

371. *Hypagoptera rufeola*, n. sp.

♂. Head and thorax red-brown; fore tibiæ and tarsi blackish; abdomen orange-yellow. Fore wing bright fulvous brown; an

Fig. 95.—*Hypagoptera rufeola*, ♂. 1.

obscure diffused fuscous postmedial band angled at middle. Hind wing orange-yellow.

♀. Thorax and fore wing except the costal area tinged with purplish fuscous, no trace of the postmedial line.

Hab. NATAL, Estcourt (*Hutchinson*), 2 ♂, type; CAPE COLONY, Transkei (*Miss F. Barrett*), 2 ♂, 2 ♀. *Exp.* 32 millim.

Genus **MANTALA**.

Type.

Mantala, Wlk. Journ. Linn. Soc., Zool. vi. p. 108 (1862) *tineoides*.

Proboscis fully developed; palpi porrect, the 3rd joint long and extending about the length of head; antennæ of male with the basal half broad, flattened and serrate, with long bristles and cilia; tibiæ with the spurs short; abdomen clothed with rough hair. Fore wing short and broad, the costa highly arched beyond middle, especially in male, which has a fringe of very long scales in terminal half of cell and on inner margin below; vein 2 from towards end of cell, oblique; 3, 4 strongly stalked; 5 absent; 6 from below angle of cell; 7, 8, 9, 10 stalked, 10 from beyond 7; 11 free. Hind wing with vein 2 from well before angle of cell; 3, 4 strongly stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

372. *Mantala tineoides*.

Mantala tineoides, Wlk. Journ. Linn. Soc., Zool. vi. p. 109 (1862); Swinh. Cat. Het. Mus. Oxon. p. 119, pl. iv. f. 23.

Fulvous yellow-brown. Fore wing with black spot on middle of costa, with an indistinct diffused fuscous line from it to inner margin, interrupted in male by the fringe of scales; a diffused indistinct fuscous subterminal line. Hind wing pale brownish yellow, darker towards termen.



Fig. 96.—*Mantala tineoides*, ♂. 1.

Hab. BORNEO, Sarawak (Wallace), 1 ♀, type ♂ in Mus. Oxon.; PULO LAUT (Doherty), 2 ♂, 2 ♀. *Exp.* 20 millim.

Genus *BITECTA*.

Type.

Bitecta, Heyl. C. R. Soc. Ent. Belge, xxxv. p. ccccx (1891)..... *murina*.

Proboscis fully developed; palpi porrect, the 3rd joint long, slender, and extending about the length of head; antennæ of male with bristles and cilia; tibiae with the spurs moderate; abdomen clothed with rough hair, the terminal segment and claspers with long hair. Fore wing long and narrow, the costa arched at middle, the inner margin arched; a fringe of hair in basal half of cell and the median and subcostal nervures approximated; a fringe of hair below medial part of costa and the costal edge turned over on upperside; vein 2 from middle of cell, curved at base; 3, 4 shortly stalked; 5 absent; the lower discocellular very short and vein 6 from near lower angle of cell; 7 from upper angle; 8, 9 stalked; 10 from cell, curved at base; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 absent; 7 from before upper angle; 8 from middle of cell.

373. *Bitecta murina*.

Lithosia murina, Heyl. C. R. Soc. Ent. Belge, xxxv. p. ccccx (1891); Kirby, Cat. Het. p. 915.

♂. Grey-brown: abdomen yellowish grey, blackish towards extremity, the genital tufts yellow. Fore wing with darker streaks

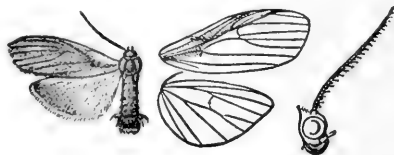


Fig. 97.—*Bitecta murina*, ♂. 1.

on the veins; the basal part of costal area pale yellowish, the costal edge blackish, the fringe of scales below costa leaden grey. Hind wing yellow, the outer third pale brown.

Hab. BORNEO, Kina Balu; JAVA, Arjuno, 3000 ft. (Doherty), 1 ♂, Preanger type ♂ in Coll. Heylaerts. *Exp.* 32 millim.

Genus **CALAMIDIA**.

Type.

Calamidia, Butl. Trans. Ent. Soc. 1877, p. 358 *hirta*.

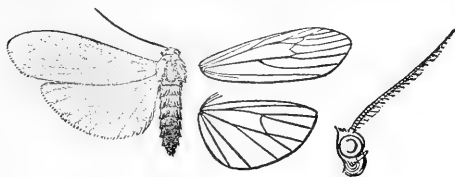
Proboscis fully developed; palpi upturned, of male with the 2nd joint long and slender, the 3rd joint longer than the 2nd, subclavate and bent forward, of female not reaching vertex of head; antennæ of female with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow, the costa arched, the apex rounded; vein 2 from middle of cell, curved at base; 3 from well before angle; 5 absent; 6 from below or from angle or shortly stalked with 7; 9 from 10 anastomosing with 8 to form the areole; 7 from areole; 11 free, curved. Hind wing with vein 2 from middle of cell; 3, 4 from angle; 5 absent; 6, 7 from upper angle; 8 from middle of cell.

374. *Calamidia hirta*.

Lithosia hirta, Wlk. ii. 510, ♀ (1854); Meyr. P. Linn. Soc. N. S. W. (2) i. p. 694; Kirby, Cat. Het. p. 339.

Calamidia salpinctis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 694, ♂ (1886); Kirby, Cat. Het. p. 339.

♂. Head and thorax brownish ochreous; abdomen ochreous yellow; legs whitish ochreous; fore femora fuscous above. Fore wing whitish ochreous suffused with pale fuscous, except an elongate

Fig. 98.—*Calamidia hirta*, ♀. 1.

elliptical patch below the cell from base to middle, the suffusion below and beyond it darker; cilia whitish ochreous tinged with fuscous. Hind wing ochreous yellow.

♀. Head and thorax white tinged with fuscous; abdomen pale orange-yellow. Fore wing yellowish white, the veins slightly tinged with brown, the inner area suffused with pale brown to beyond middle, where it is joined by a very ill-defined diffused pale brown fascia from middle of termen. Hind wing pale orange-yellow.

Hab. N. S. WALES, Sydney (*Damel, Mathew*), 4 ♀, type **VICTORIA**. *Exp.* 44–50 millim.

Genus **MONOTAXIS**, nov.

Type, *M. trimaculata*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of female ciliated; tibiæ with the spurs moderate. Fore wing long and narrow; vein 2 from middle of cell, curved at base; 3 from well before angle; 5 absent; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from middle of cell; 3, 4 from angle; 5 absent; 6, 7 from upper angle; 8 from middle of cell.

375. *Monotaxis trimaculata*, n. sp.

♀. Head and thorax blue-black; palpi, frons, tegulæ, and base of patagia orange; legs orange and blue-black; abdomen orange,



Fig. 99.—*Monotaxis trimaculata*, ♀. 1.

the dorsal surface dull blue-black except at extremity. Fore wing blue-black, with a large subbasal wedge-shaped orange spot in and below cell; an elliptical spot in end of cell, and a somewhat quadrate elongate spot on apical part of costa; cilia yellow towards tornus. Hind wing orange-yellow.

Hab. BORNEO, Kina Balu (*Waterstradt*), 1 ♀ type. *Exp.* 40 millim.

Genus *ISORROPUS*.

Isorropus, Butl. A. M. N. II. (5) v. p. 342 (1880) Type. *tricolor*.

Proboscis fully developed; palpi porrect, not extending beyond frons, which is clothed with rough hair; antennæ of female ciliated, with a tuft of large scales on upperside of shaft beyond middle; tibiæ with the spurs moderate. Fore wing long and narrow; vein 2 from towards angle of cell, oblique; 3, 4 stalked; 5 absent; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 free. Hind wing with vein 2 from towards angle of cell; 3, 4 and 6, 7 strongly stalked; 5 absent; 8 from middle of cell.

376. *Isorropus tricolor*.

Isorropus tricolor, Butl. A. M. N. II. (5) v. p. 343 (1880); Kirby, Cat. Het. p. 316.

♀. Head, thorax, and abdomen crimson; palpi at tips, antennæ, and legs blackish. Fore wing with the basal area orange to near



Fig. 100.—*Isorropus tricolor*, ♀. 1.

middle, the base itself crimson with a black spot; the terminal half black, with a broad orange postmedial band from just below costa

to inner margin, its outer edge excurved below middle. Hind wing orange, with broad terminal black band narrowing to tornus.

Hab. MADAGASCAR, Fianarantsoa (*Cowan*), 2 ♀, type. *Exp.* 38 millim.

Genus CHRYSORABDIA.

Type.

Chrysorabdia, Butl. Trans. Ent. Soc. 1877, p. 357..... *viridata*.

Proboscis present; palpi obliquely upturned, extending to just beyond frons; antennæ of male ciliated; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from before middle of cell, curved at base; 3, 4 from angle; 5 absent; 6 from upper angle; 9 from 10 anastomosing with 7, 8 to form the areole; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 stalked or from cell; 5 absent; the discocellulars almost entirely aborted and the cell open, a recurrent vein in cell from angle of discocellulars; 6, 7 shortly stalked; 8 from before middle of cell.

SECT. I. Fore wing of male with an oblique patch of androconia on vein 1 almost met by an oblique streak from end of cell; hind wing with veins 3, 4 stalked.

- A. Thorax black..... *viridata*.
B. Thorax yellow..... *bivitta*.

377. *Chrysorabdia viridata*.

Lithosia viridata, Wlk. xxxi. 225 (1864); Moore, P. Z. S. 1873, p. 19, pl. 2. f. 1; Hmps. Moths Ind. ii. p. 74; Kirby, Cat. Het. p. 337.

Gnophria strigata, Möschl. Stett. ent. Zeit. xxxiii. p. 353 (1872).

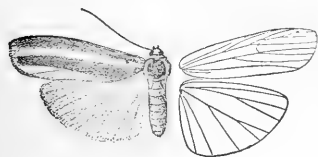


Fig. 101.

Chrysorabdia viridata, ♀. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

♂. Head and tegulæ yellow; palpi, frons, and antennæ black; patagia yellow edged with black; thorax black; abdomen yellow, the dorsum greyish. Fore wing yellow, the costa, a broad fascia below costa expanding towards termen, and another on vein 1 narrow at base and narrowing to termen, blackish with metallic green on them at base and beyond the oblique fuscous streaks of andro-

conia. Hind wing pale yellow.

♀. Anal tuft blackish at base. Fore wing with a greenish-black fascia on costa narrowing to a point before apex, and another from base of inner margin to middle of termen.

Hab. SIKHEM (*W. S. Atkinson, Lidderdale*), 4 ♂, 6 ♀, type; ASSAM, Sylhet. *Exp.*, ♂ 40-42, ♀ 42-52 millim.

378. *Chrysorabdia bivitta*. (Plate XXIII. fig. 11.)

Lithosia bivitta, Wlk. vii. 1682 (1856); Hmps. Moths Ind. ii. p. 74; Kirby, Cat. Het. p. 337.

Lithosa disjuncta, Moore, P. Z. S. 1865, p. 797 Kirby, Cat. Het. p. 337.

♂. Pale orange-yellow; palpi at tips, frons, and antennæ.

greenish black; patagia deep metallic green edged with yellow; legs marked with green. Fore wing with green costal fascia from base narrowing to a point before apex; an oblique green band from below cell near base to inner margin before middle; a wedge-shaped patch on vein 1 from middle to near termen; the streaks of androconia greyish; a greenish fascia from end of cell to near termen. Hind wing pale yellow.

♀. Patagia yellow. Fore wing with the costal fascia broader; a broad fascia from above inner margin near base to near termen above vein 2, no fascia beyond the cell.

Hab. N.W. HIMALAYAS, Simla, 4 ♂, 1 ♀, Dalhousie, 2 ♀ (*Harford*); SIKHIM; ASSAM, Khâsis, Moore Coll. *Exp.*, ♂ 50-52, ♀ 52-68 millim. Type† in Mus. Oxon.

SECT. II. Fore wing of male without streaks of androconia. Hind wing with veins 3, 4 from cell.

- | | |
|---------------------------|--------------------|
| A. Patagia black | <i>aurantiaca.</i> |
| B. Patagia yellowish..... | <i>alpina.</i> |

379. *Chrysorabdia aurantiaca*. (Plate XXIII. fig. 16.)

Chrysorabdia aurantiaca, Hmps. Journ. Bomb. Nat. Hist. Soc. 1898, p. 297.

♂. Orange-yellow; palpi, frons, antennæ, and greater part of legs greenish black; patagia greenish black edged with orange; anal segment of abdomen with two fuscous spots. Fore wing with broad black costal fascia narrowing slightly near apex; a broad fascia from just above inner margin near base to near middle of termen; cilia black at tips except towards tornus; the underside black except costa towards apex and terminal area.

Hab. ASSAM, Khâsis, 1 ♂ type. *Exp.* 62 millim.

380. *Chrysorabdia alpina*, n. sp. (Plate XXIII. fig. 17.)

Brownish ochreous; palpi, frons, and thorax black; legs black and ochreous; abdomen tinged with greyish. Fore wing with the basal half of costal edge black; a diffused greenish-black subcostal fascia from base to beyond middle or to termen; a similar broader fascia from inner margin near base to middle of termen. Hind wing somewhat yellower in male and with the costal area tinged with fuscous.

Hab. TIBET, Yatong, 10,500 ft. (*Hobson*), 6 ♂, 5 ♀, type. *Exp.* 46 millim.

Genus CHRYSÆGLIA.

Chrysægilia, Butl. Trans. Ent. Soc. 1877, p. 356 Type. *magnifica.*

Proboscis fully developed; palpi obliquely upturned, thickly scaled, and reaching just beyond frons; antennæ of male with bristles and cilia; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell curved towards base; 3 from near

angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked*; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from close to angle; 5 absent; 6, 7 from angle or shortly stalked; 8 from middle of cell.

381. *Chrysægla magnifica*.

Lithosia magnifica, Wlk. Journ. Linn. Soc., Zool. vi. p. 103 (1862); Hmps. Moths Ind. ii. p. 72; Kirby, Cat. Het. p. 336.

Chrysægla ferrifasciata, Moore, P. Z. S. 1878, p. 13, pl. i. f. 6; Kirby, Cat. Het. p. 336.

Golden yellow; palpi with deep metallic green spots at sides; antennæ, patagia, and legs except at base green. Fore wing with broad costal green fascia on basal area, then narrowing; a rounded

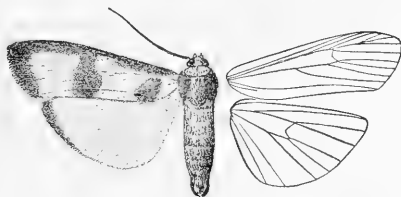


Fig. 102.—*Chrysægla magnifica*, ♂. $\frac{1}{2}$. (From Moths Ind. vol. ii.)

or oblique patch on basal inner area; a medial band expanding below the cell; a broad terminal band with purple reflections. Hind wing with the cilia fuscous towards apex.

In the Indian form *ferrifasciata* the medial band of fore wing expands more below the cell than in the Bornean form.

Hab. NEPAL, Moore Coll., type ♂ *ferrifasciata*; SIKHIM (*Lidderdale*), 3 ♂, 1 ♀; BORNEO, Sarawak (*Wallace*), 2 ♂, type. *Exp.*, ♂ 50, ♀ 58 millim.

Genus ÆONISTIS.

<i>Æonistis</i> , Hübn. Verz. p. 165 (1827)	Type.
<i>Philagria</i> , Kirby, Cat. Het. p. 336 (1892)	<i>entella</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male bipectinate with short branches, the terminal part serrate; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell curved at base; 3 from well before angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from close to angle; 4, 5 shortly stalked; 6, 7 from upper angle or very shortly stalked; 8 from middle of cell.

382. *Æonistis entella*.

Tinea entella, Cram. Pap. Exot. iii. pl. 208. D (1779); Moore, Lep. Ceyl. ii. p. 55, pl. 101. f. 2; Hmps. Moths Ind. ii. p. 71; Kirby, Cat. Het. p. 336.

Noctua convoluta, Fabr. Spec. Ins. ii. p. 215 (1781).

* In one specimen of *magnifica* from Borneo the fore wing has an areole.



Fig. 103.—*Ecnistis entella*, ♂. 1.
(From Moths Ind. vol. ii.)

Orange-yellow : palpi, except at base, and antennæ black ; thorax, patagia, and legs except at base deep metallic green. Fore wing with the costal area deep metallic green ; a medial green band expanding inwards below the cell into a large quadrate patch varying in extent ; a large quadrate patch on terminal area extending from costa down to vein 2, with a large elliptical yellow spot

at apex. Hind wing paler yellow.

Hab. FORMOSA (*Hobson*), 1 ♀ ; BOMBAY, 1 ♂, 1 ♀ ; CEYLON (*Yerbury*), 1 ♂, 2 ♀. *Exp.* 42 millim.

Larva. Hmps. Ill. Het. ix. p. 80, pl. 175. f. 8.

Adult : head red-brown ; ground-colour ochreous, streaked and mottled with black dorsally and brown laterally and ventrally ; numerous tufts of grey and brown hairs ; the 1st somite with short dorsal and lateral tufts projecting forwards ; the 2nd somite with a very long pair of dorsal tufts, a shorter pair of lateral tufts, and a short pair of sublateral tufts ; the 3rd somite has the dorsal tufts arising from a crimson wart and rather long, as are the lateral pair, whilst the subventral pair are very short ; on the other somites the dorsal tufts are short and arise from orange warts, except on the 7th somite, where the warts are crimson ; the lateral tufts are long and the sublateral short ; the anal somite has one dorsal tuft arising from a large wart ; the legs and claspers brown, Food-plant, Lichens.

Subsp. 1. *delia*, Fabr. Mant. Ins. ii. p. 140 (1787) ; Don. Ins. N. Holl. pl. 36. f. 2 ; Kirby, Cat. Het. p. 337.

Tigrioides splendens, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1068 (1890) ; Kirby, Cat. Het. p. 341.

Fore wing with the quadrate medial patch usually shorter ; the terminal patch with its lower edge running obliquely to tornus, the green on thorax not extending so far forward.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ ; NEW HEBRIDES (*Mathew*), 2 ♂ ; SOLOMONS, Pentecost (*Woodford*), 1 ♂ ; N. AUSTRALIA, Amsterdam I. : QUEENSLAND (*Mackay*), type † *splendens* in Coll. Lower.

Subsp. 2. *ceramensis*, Voll. Tijd. v. Ent. xvi. p. 246, pl. 12. f. 1 (1872) ; Kirby, Cat. Het. p. 337.

More fulvous orange ; fore wing with the medial patch extending more towards base below median nervure ; the terminal patch running obliquely to tornus ; the green on thorax as in typical form.

Hab. CERAM.

Genus **AGKONIA.**

Agkonion, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 123 (1894) Type, *pega*.

Proboscis fully developed; palpi upturned, reaching vertex of head, with downturned hair at end of 2nd and on 3rd joint on outer side; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing narrow; vein 2 from beyond middle of cell; 5 absent; 6, 7, 8 stalked; 9, 10, 11 stalked, 9 anastomosing with 8 to form the areole, 10, 11 becoming coincident with 12; the costa in male with a lobe and small tuft of hair on upperside near base.

SECT. I. Hind wing with veins 2, 3 and 4, 5 stalked from angle of cell; 6, 7 stalked; 8 from towards angle of cell and much curved, the neuuration much distorted by an elongate swelling in cell on underside; fore wing with veins 3, 4 from angle of cell.

*383. *Agkonion pega*.

Agkonion pega, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 128 (1894); id. Lép. Loja, p. 109, pl. 11. f. 15.

♂. Pale ochreous; head and thorax slightly tinged with fuscous.



Fig. 104.—*Agkonion pega*, ♂. 1.

Fore wing with the base of costa and lobe tinged with fuscous; an oblique shade of diffused fuscous scales from costa at extremity of lobe to a similar oblique shade from near apex, the two meeting at inner margin; the terminal area with some diffused

brown scales. Hind wing rather yellow.

Hab. ECUADOR, Loja, type ♂ in Coll. Dognin. *Exp.* 36 millim.

SECT. II. Hind wing with veins 2 and 4 from angle of cell, 3 absent, 5 above angle; 6, 7 on a long stalk and with an elliptical patch of androconia on them; 8 much curved; fore wing with veins 3, 4 stalked; frons hollowed out; patagia with tufts of long hair; hind tibiæ with tuft of scales on upperside at base.

384. *Agkonion miranda*, n. sp.



Fig. 105.—*Agkonion miranda*, ♂. 1.

♂. Yellowish white; head and thorax brownish; the tuft of

scales on hind tibiæ black. Fore wing with the costal lobe blackish, with round patch of rufous scales on it and met by a wedge-shaped black-brown patch from tornus; some brown scales forming traces of subterminal and terminal bands.

Hab. BOLIVIA, Rio Songo (*Garlepp*), 1 ♂ type. *Exp.* 30 millim.

Genus **DISOIDEMATA**, nov.

Type, *D. osmophora*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male with bristles and cilia; tibiæ with the spurs long. Fore wing short and rather broad; vein 2 from just beyond middle of cell; 3 from well before angle; 4, 5 from angle; 6 shortly stalked with 7, 8, 9; 7 from beyond 9; 10, 11 free, the latter curved; male with round swelling on upperside below middle of cell and tuft of long black hair on middle of inner margin below. Hind wing with vein 2 from middle of cell, which is very short; 3 from close to angle; 4, 5 and 6, 7 stalked nearly to termen; 8 almost obsolete from near end of cell; the whole apical area in male greatly excised down to vein 2 and a round swelling at end of cell on upperside.

385. *Disoidemata osmophora*, n. sp.

♂. White slightly tinged with ochreous. Fore wing with the costal edge black towards base; a few diffused black scales on basal area, especially on inner area before middle; some black scales on terminal area and a large rounded diffused patch between veins 7 and 1.



Fig. 106.

Disoidemata osmophora, ♂. 1.

Hab. MEXICO, Vera Cruz (*H.H. Smith*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

Genus **CYCLOSTICTA**, nov.

Type, *C. discata*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather broad, the costa arched towards apex, which is rounded; the base of cell narrow, and the subcostal and median nervures approximated; vein 3 from near angle of cell; 4, 5 stalked; 6, 7, 8, 9, 10 stalked, 7 from beyond 9; 11 curved and approximated to 12; male with a rounded patch of fulvous androconia in and below end of cell on underside. Hind wing with vein 2 from middle of cell; 3 from angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

386. *Cyclosticta discata*.

Cyclosticta discata, Schaus, J. N. Y. Ent. Soc. vii. p. 216 (1899).

♂. White slightly tinged with yellow. Fore wing with the costa ochreous, the inner area tinged with fuscous; the patch of

androconia on underside fulvous. Hind wing white, with patch of yellowish-white scales in end of cell.

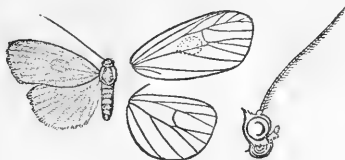


Fig. 107.—*Cyclosticta discata*, ♂. 1.

Hab. BRAZIL, Rio Janeiro, 1 ♂. *Exp.* 28 millim. Type † in Coll. Schaus.

Genus **MINTOPOLA**, nov.

Type, *M. brasiliensis*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; frons rounded; antennae of male with bristles and cilia; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing rather short and broad; vein 2 from middle of cell, oblique; 3 from near or from angle; 4, 5 stalked; 5 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free; male with ridges of downturned scales on upperside below costa and in cell. Hind wing with vein 2 from middle of cell; 3, 4, 5 stalked, or 3 from angle of cell; 6, 7 stalked; 8 from middle of cell; the inner area folded over and clothed with rough hair.

387. *Mintopola brasiliensis*.

Mintopola brasiliensis, Schaus.

♂. Head and thorax pale brown; abdomen greyish, the anal tuft brownish. Fore wing pale brown, the medial area suffused with fuscous brown, extending on inner area to termen and leaving the apical area whitish. Hind wing whitish, the basal half tinged with brown.



Fig. 108.—*Mintopola brasiliensis*, ♂. 1.

Hab. BRAZIL, Petropolis, N. Friburgo, type † in Coll.

Schaus, Rio Janeiro, 3 ♂. *Exp.* 28 millim.

Genus **DISAULOTA**, nov.

Type, *D. leptalina*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennae of male with bristles and cilia; tibiae with the spurs moderate. Fore wing of male rather short, the costa arched, the apex and termen rounded; vein 2 from middle of cell, oblique; 3, 4 shortly stalked; 5 absent; 6 from below upper angle of cell, becoming coincident with 4; 7, 8, 9 stalked; 10 from

11 slightly anastomosing with 8, 9 to form a large areole; the medial area on underside occupied by a large patch of androconia, the costa fringed with short hair below. Hind wing ample, longer than fore wing; vein 2 from well before angle of cell; 3, 4 coincident; 5 absent; 6, 7 from upper angle; 8 from middle of cell, curved; the costa fringed with long hair.

388. *Disaulota leptalina*.

Arera leptalina, Druce, Biol. Centr.-Am., Het. i. p. 133, pl. 13. f. 5 (1885); Kirby, Cat. Het. p. 338.

♂. White; head and thorax tinged with purplish fuscous; (abdomen wanting). Fore wing with some purplish fuscous on

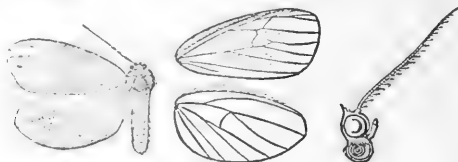


Fig. 109.—*Disaulota leptalina*, ♂. 1.

costa and at base of inner margin; the whole medial area suffused with purplish fuscous, extending on inner area to tornus. Hind wing with some fuscous grey on termen below middle.

Hab. COSTA RICA, Caché (*Rogers*), 1 ♂ type, Salvin-Godman Coll. *Exp.* 40 millim.

Genus **MACROPTILA**.

Type.

Macroptila, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 129 (1894)... *crinada*.

Proboscis fully developed; palpi upturned, not reaching vertex of head and clothed with downturned hairs; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from beyond middle of cell; 3 from well before angle; 4, 5 shortly stalked; 7 stalked with 8, 9; 11 curved and becoming coincident with 12; male with the costa fringed with short hair below. Hind wing very ample; vein 2 from middle of cell; 3 from close to angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing with vein 6 from well below angle of cell; 7 shortly stalked with 8, 9; 10 free; male with a fringe of very long hair in cell above median nervure; hind wing with a large patch of androconia below the costa beyond middle.

389. *Macroptila crinada*.

Macroptila crinada, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 129 (1894); id. Léop. Loja, p. 110, pl. xi. ff. 16, 17.

♂. Head and thorax fuscous; antennæ fulvous towards extremity; abdomen yellowish white, the anal tuft orange. Fore wing whitish; the costa yellowish, dark towards base; the inner area

purplish fuscous and a diffused oblique fascia above vein 2. Hind wing yellowish white; the termen tinged with fuscous.

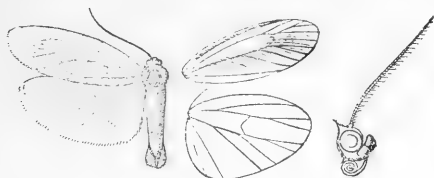


Fig. 110.—*Macroptila crinada*, ♂. $\frac{1}{2}$.

♀. White; head and thorax tinged with fuscous; fore wing with fuscous fascia on inner area.

Hab. ECUADOR, Loja, 1 ♂, 1 ♀. *Exp.* 44 millim. Type † ♂ in Coll. Dognin.

SECT. II. Fore wing with vein 6 from angle of cell; 7, 8, 9, 10 stalked; male with fringe of long hair below the cell on underside, and tufts of very long spatulate scales in, below, and beyond end of cell; hind wing without patch of androconia.

*390. *Macroptila laniata*.

Macroptila laniata, Dognin, Ann. Soc. Ent. Belge, xliii. p. 251 (1899).

♂. Head, thorax, and abdomen white tinged with fuscous palpi, antennæ, legs, and terminal segment and ventral surface of

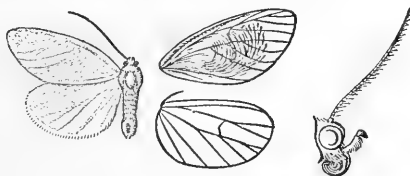


Fig. 111.—*Macroptila laniata*, ♂. $\frac{1}{2}$.

abdomen tinged with ochreous. Fore wing silvery white slightly tinged with fuscous, the hair on underside of costa and the tufts of scales yellowish white. Hind wing with the costal half tinged with fuscous, the inner half white.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 34 millim.

Genus **HYPAREVA**, nov.

Type, *H. pogonoda*.

Proboscis fully developed; palpi upturned, fringed with downturned hair and not reaching vertex of head; antennæ of male with long bristles and cilia, the basal joint strongly dilated; fore femora fringed with long hair; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing rather

narrow; vein 2 from beyond middle of cell; 3 from before angle; 4, 5 shortly stalked; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free; male with fringes of long hair in cell and below vein 2 on underside. Hind wing with vein 2 from middle of cell; 3 from angle; 4, 5 stalked; 6, 7 from upper angle; 8 from middle of cell; male with a large pouch on basal part of median nervure.

391. *Hypareva pogonoda*, n. sp.

Areva laticilia, Druce, Biol. Centr.-Am., Het. i. p. 133 (part).

♂. White; head tinged with ochreous. Fore wing with slight brownish suffusion on costal area and purplish-fuscous suffusion on inner area; the fringes of hair on underside ochreous; cilia of both wings tinged with purplish fuscous.



Fig. 112.—*Hypareva pogonoda*, ♂. 1.

Hab. MEXICO, Teapa (*H. H. Smith*), 1 ♂; GUATEMALA (*Champion*), 2 ♂; PANAMA (*Champion*), 3 ♂, 2 ♀, Salvin-Godman Coll.; CATENNE (*Deyrolle*), 1 ♂ type. *Exp.* 32 millim.

♀. Fore wing with the fuscous suffusion on inner area more prominent.

Genus *HYPERTHAGYLLA*, nov.

Type, *H. mira*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair; male with very large lateral tufts of hair on last segment. Fore wing narrow, the cell long; vein 2 from middle of cell; 3 from close to angle; 4, 5 from angle; 6 from below upper angle; 9 from 10 anastomosing with 8 to form the areole; 7 from beyond 9; 11 free. Hind wing with vein 2 from middle of cell; 3 from close to angle; 4, 5 shortly stalked; 6, 7 coincident; 8 from middle of cell; male with patch of androconia and fringe of long hair in and beyond end of cell.

392. *Hyperthagylla mira*.

Agylla mira, Butl. Trans. Ent. Soc. 1878, p. 58, pl. 3. f. 2; Kirby, Cat. Het. p. 440.

♂. White; head, thorax, and base of abdomen tinged with purplish fuscous; the anal tufts brown. Fore wing with the costal and inner areas tinged with pale purplish fuscous; the underside of terminal area pale purplish fuscous. Hind wing with the patch in cell red-brown.



Fig. 113.—*Hyperthagylla mira*, ♂. 1. *Hab.* AMAZONS, R. Jutahi and Javary (*Trail*), 2 ♂, type. *Exp.* 26 millim.

Genus **AGYLLA**.

<i>Agylla</i> , Wlk. ii. 552 (1854)	Type.
<i>Sidyma</i> , Wlk. vii. 1686 (1856)	<i>fusciculata</i> .
<i>Tripura</i> , Moore, Lep. E. I. C. p. 298 (1858)	<i>albifinis</i> .
<i>Salapota</i> , Wlk. xxviii. 525 (1863)	<i>prasana</i> .
<i>Crambomorpha</i> , Feld. Reis. Nov. pl. 106. f. 9 (1874), non descr., nec <i>Crambomorphus</i> , MacL. Neur. (1867)	<i>nivea</i> .
<i>Churinga</i> , Moore, P. Z. S. 1878, p. 9	<i>umbrifera</i> .
<i>Vamuna</i> , Moore, P. Z. S. 1878, p. 10	<i>rufifrons</i> .
<i>Ghoria</i> , Moore, P. Z. S. 1878, p. 12	<i>remelana</i> .
<i>Hesudra</i> , Moore, P. Z. S. 1878, p. 12	<i>albocinerca</i> .
	<i>divisa</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing rather narrow; vein 2 from just beyond middle of cell; 3 from well before angle; 4, 5 stalked, usually shortly, or from cell; 6 from upper angle or from areole, which is formed by 9 being given off from 10 and anastomosing with 8, 7 from end of areole; 11 free. Hind wing with vein 3 from or from close to angle of cell; 4, 5 stalked or from angle; 6, 7 stalked or from angle; 8 from or from beyond middle of cell.

SECT. I. (*Sidyma*). Antennæ of male bipectinate.

A. Antennæ of male bipectinate, with moderate branches to apex.

a. Fore wing with apical white patch.

a¹. Colour black-brown; hind wing without white at apex... *apicalis*.

b¹. Colour grey-brown; hind wing with white at apex *albifinis*.

b. Fore wing with yellowish-white fasciæ on costa, median nerve, and inner margin *vittata*.

393. *Agylla apicalis*.

Sidyma apicalis, Moore, P. Z. S. 1878, p. 9, pl. i. f. 2; Hmps. Moths Ind. ii. p. 67; Kirby, Cat. Het. p. 345.

♂. Black-brown with a purplish gloss; tegulæ fringed with orange-red; pectus and base of legs orange. Fore wing with apical white patch extending to below vein 3 with rounded inner edge.

Hab. SIKHIM, 1 ♂ (*Dudgeon*). *Exp.*, ♂ 42, ♀ 44 millim. Type† in Coll. Staudinger.

394. *Agylla albifinis*.

Sidyma albifinis, Wlk. vii. 1686 (1856); Hmps. Moths Ind. ii. p. 67; Kirby, Cat. Het. p. 345.

Grey-brown; first joint of palpi orange; tegulæ fringed with

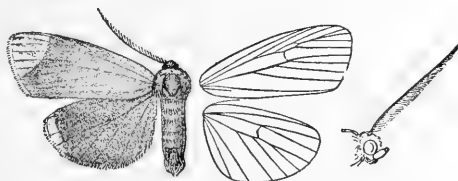


Fig. 114.—*Agylla albifinis*, ♂. 1. (From Moths Ind. vol. ii.)

orange; pectus and basal part of legs orange; abdomen with the

anal tuft fulvous. Fore wing with large apical white patch extending to below vein 3 and with rounded inner edge. Hind wing with the termen and cilia white from apex to below vein 3.

Hab. N.W. HIMALAYAS, Simla (*Harford*), Masuri, Dalhousie, Moore Coll. *Exp.*, ♂ 42, ♀ 45 millim. Type in Mus. Oxon.

*395. *Agylla vittata*. (Plate XXIII. fig. 18.)

Gnophria vittata, Leech, Trans. Ent. Soc. 1899, p. 178.

♂. Head and thorax black-brown; palpi, frons, tegulæ, and outer edge of patagia orange-yellow; pectus, the greater part of legs, and the abdomen ochreous. Fore wing black-brown, with slight bluish gloss; the costal edge ochreous; moderately broad yellowish-white fasciæ on median nervure and above vein 5 to termen and on inner margin; cilia whitish, blackish towards apex. Hind wing brownish white.

Hab. N. CHINA, Ni-tou, type † in Coll. Leech; Omei-shan. *Exp.* 46 millim.

- B. (*Hesudra*). Antennæ of male bipectinate with short branches, the apical part serrate and fasciculate.
- a. Fore wing white, with black-green streak on vein 1 . *foyi*.
 - b. Fore wing white, the inner area fuscous.
 - a¹. Fore wing of male with wedge-shaped fuscous postmedial patch on inner area *argentifera*.
 - b¹. Fore wing of male with white subbasal patch on the inner fuscous area *marcata*.
 - c. Fore wing white, the costa narrowly yellow.
 - a¹. Vertex of head black *zucarina*.
 - b¹. Vertex of head white or orange *nivea*.
 - d. Fore wing with the costal half yellowish, the inner half fuscous *divisa*.
 - e. Fore wing yellowish white, with ante- and post-medial fuscous patches on inner area *nochiza*.
 - f. Fore wing brown.
 - a¹. Hind wing whitish *zopisa*.
 - b¹. Hind wing brown, with the costal and terminal areas yellow *beema*.
 - c¹. Hind wing orange with terminal fuscous band, narrowing to tornus *metaxantha*.
 - d¹. Hind wing wholly orange.
 - a². Fore wing with white fascia on inner margin... *gigas*.
 - b². Fore wing without white fascia on inner margin.
 - a³. Head and tegulæ orange *ruffrons*.
 - b³. Head and tegulæ dark *semirufa*.

*396. *Agylla foyi*.

Macrocrambus foyi, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 123 (1894); id. Léop. Loja, p. 105, pl. 11. ff. 7, 7 a.

♂. Palpi orange, black at tips; head, tegulæ, and front of patagia and thorax deep metallic green, the rest of patagia and thorax silvery white; pectus, legs, and abdomen orange-yellow, fore tibiæ and tarsi streaked with deep green; a tuft of white hair from base of fore wing. Fore wing silvery white, the costa orange to near

apex; a fine black-green streak along vein 1. Hind wing dull white; the cilia silvery white.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 50 millim.

397. *Agylla argentifera*. (Plate XXIII. fig. 24.)

Halesidota argentifera, Wlk. xxxv. 1911 (1866); Druce, Biol. Centr.-Am., Het. ii. p. 401; Kirby, Cat. Het. p. 337.

♂. Silvery white; palpi orange, black at tips; frons black; antennæ orange; tegulæ tinged with fuscous; legs mostly orange; fore tibiæ and tarsi streaked with black; abdomen dorsally tinged with ochreous. Fore wing with the costa narrowly orange; a more or less prominent wedge-shaped fuscous patch on inner area beyond middle.

♀. Fore wing without orange on costa or fuscous patch on inner area.

Hab. MEXICO, Jalapa (*Trujillo*), 3 ♂, 1 ♀; COSTA RICA (*Underwood*), 2 ♂, 2 ♀, Godman-Salvin Coll.; VENEZUELA, 1 ♀ type; BRAZIL (*Dohrn*), 1 ♂. *Exp.*, ♂ 46, ♀ 52 millim.

398. *Agylla marcata*. (Plate XXIII. fig. 23.)

Crambomorpha marcata, Schaus, P. Z. S. 1894, p. 240.

♂. Palpi and antennæ orange; frons brown, vertex of head white; thorax fuscous; patagia with orange spot and white streak on outer side; pectus, legs, and abdomen orange, the last with the medial part of dorsum white. Fore wing silvery white; the costa orange; the inner area fuscous, with white streak on basal half of margin. Hind wing white. Underside of fore wing tinged with fuscous in cell and from origin of vein 2 to termen.

♀. Pectus and abdomen almost white; fore wing with the orange on costa very narrow, an orange streak above the fuscous inner area, the white streak on margin short.

Hab. BRAZIL, Rio Janeiro, 4 ♂, type † in Coll. Schaus; PERU, 1 ♀, Coll. Schaus. *Exp.* 40 millim.

***399. *Agylla zucarina*.**

Macrocrambus zucarina, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 123 (1894); id. Léop. Loja, p. 105, pl. 11. f. 8.

♂. Head black; palpi except towards extremity, antennæ, tegulæ, and shoulders orange; thorax white; pectus and legs orange; fore legs suffused with fuscous; abdomen ochreous, greyish towards base of dorsum. Fore wing silvery white; the costa narrowly orange. Hind wing dull white. Underside tinged with fuscous.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 34 millim.

400. *Agylla nivea*.

Lithosia nivea, Wlk. vii. 1778 (1856); Kirby, Cat. Het. p. 338.

Halesidota monoleuca, Wlk. xxxv. 1911 (1866); Kirby, Cat. Het. p. 337.

Crambomorpha argentea, Feld. Reis. Nov. pl. 106. f. 10 (1874); Druce, Biol. Centr.-Am., Het. i. p. 132; Kirby, Cat. Het. p. 337.

Crambomorpha virginica, Schaus, P. Z. S. 1894, p. 240.

Macrocrambus plateada, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 122 (1894); id. Lép. Loja, p. 104, pl. 11, ff. 6, 6 a.

Macrocrambus florecilla, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 122 (1894); id. Lép. Loja, p. 105, pl. 11, f. 5.

♂. Silvery white; palpi orange, black at tips; frons blackish; vertex of head white or orange; antennæ orange; legs mostly orange, fore tibiæ and tarsi streaked with black; abdomen white, pale yellow, or orange-yellow. Fore wing with the costa orange.



Fig. 115.—*Agylla nivea*, ♂. $\frac{1}{2}$.

♀. Fore wing without orange on costa.

Ab. 1. Tegulæ and fore part of patagia and thorax suffused with fuscous.

(a) *argentea*, vertex of head yellow; (b) *florecilla*, vertex of head fuscous.

Ab. 2. *plateada*. Tegulæ and fore part of patagia and thorax tinged with metallic green.

Hab. MEXICO, Jalapa (*Trujillo*), 3 ♂, 3 ♀, Coatepec (*Brooks*), 2 ♀; GUATEMALA (*Champion*, *Rodriguez*), 2 ♂, 1 ♀; COSTA RICA (*Rogers*, *Underwood*), 3 ♂, 1 ♀; PANAMA (*Champion*), 1 ♀, Godman-Salvin Coll.; COLOMBIA, Bogota (*Stevens*), 1 ♂, type *monoleuca*; BRAZIL, São Paulo (*Jones*), 1 ♂, 1 ♀, Espiritu Santo, 1 ♂, Paraña, type† *virginica* in Coll. Schaus; ECUADOR, Loja, 1 ♀; BOLIVIA, Chaco (*Garlepp*), 1 ♂. *Exp.* 30–48 millim. Type† *argentea* in Coll. Rothschild.

401. *Agylla divisa*.

Hesudra divisa, Moore, P. Z. S. 1878, p. 12, pl. i. f. 4; Hmps. Moths Ind. ii. p. 70; Kirby, Cat. Het. p. 335.

♂. Head and thorax black-brown; base of palpi and neck yellowish; pectus and greater part of legs yellow; abdomen grey, the anal tuft and ventral surface yellow. Fore wing with the costal half pale yellowish, the costa blackish towards base; the inner half purplish fuscous. Hind wing dull yellow.

Hab. SIKHIM (*Atkinson*), 1 ♂ type; BORNEO, Kina Balu (*Waterstradt*). *Exp.* 36 millim.

402. *Agylla nochiza*.

Macrocrambus nochiza, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 123 (1894); id. Lép. Loja, p. 106, pl. 11, f. 9.

♂. Ochreous white; frons, basal half of antennæ, and thorax

suffused with fuscous brown; fore and mid tibiæ and tarsi streaked with brown. Fore wing with black-brown streaks on base of costa, on median nervure and base of veins arising from it; a discoidal spot; a dentate patch on middle of inner margin with its apex curving outwards to cell; a quadrate patch on terminal part of inner area.

♀ whiter; fore wing irrorated with dark brown; the two patches on inner area diffused, the first irregular and extending almost to base; traces of an oblique postmedial line.

Ab. 1. ♀. Fore wing without dark irroration; the ♂ typical.—Bolivia.

Hab. ECUADOR, Loja, 1 ♀; BOLIVIA, Chaco (*Garlepp*), 1 ♀. *Exp.*, ♂ 48, ♀ 56 millim.

*403. *Agylla zopisa*.

Macrocrambus zopisa, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 124 (1894); id. Lép. Loja, p. 106, pl. 11. f. 10.

♂. Head and thorax fuscous brown; abdomen greyish, ochreous towards extremity. Fore wing grey, thickly clothed with fuscous-brown scales so as to leave hardly a trace of the ground-colour, the base whitish. Hind wing yellowish white.

Hab. ECUADOR, Loja, type ♂ in Coll. Dognin. *Exp.* 42 millim.

404. *Agylla beema*. (Plate XXIV. fig. 2.)

Lithosia beema, Moore, P. Z. S. 1865, p. 798; Hmps. Moths Ind. ii. p. 67; Kirby, Cat. Het. p. 315.

Head, thorax, and abdomen brown; palpi orange, the 3rd joint black; pectus and base of legs orange; abdomen with the extremity and ventral surface orange. Fore wing reddish brown with slight purplish gloss. Hind wing orange-yellow, with large brown patch on inner area not reaching termen. Underside of fore wing with the costal and terminal areas, except apex, yellow.

Hab. SIKHIM, Moore Coll. (*Lidderdale*). *Exp.*, ♂ 47, ♀ 56 millim.

405. *Agylla metaxantha*. (Plate XXIV. fig. 11.)

Macrobroschis metaxantha, Hmps. Trans. Ent. Soc. 1895, p. 292; id. Moths Ind. iv. p. 493.

♀. Fuscous brown; palpi, frons, tegulæ, and pectus orange-yellow; legs orange and fuscous; abdomen orange-yellow. Fore wing with the costal edge yellow; the medial part of inner margin yellow. Hind wing orange-yellow, with terminal fuscous band, broad at costa, narrowing to tornus. Underside of fore wing with the costal area yellow; the retinaculum yellow; hind wing with fuscous patch at apex.

Fore wing with veins 4, 5 from cell; 6 from the areole; hind wing with veins 4, 5 from the cell.

Hab. BHUTÁN (*Dudgeon*), 1 ♀ type. *Exp.* 62 millim.

***406. *Agylla gigas*. (Plate XXIV. fig. 19.)**

Chrysoradidia gigas, Heyl. C. R. Soc. Ent. Belge, xxxv. p. cccix (1891); Kirby, Cat. Het. p. 915.

♀. Head and thorax purplish fuscous; tegulæ edged with orange; palpi orange in front; pectus and legs ochreous, the latter streaked with fuscous; abdomen yellow, dorsally greyish towards base. Fore wing fuscous brown, suffused with purplish except on costal area; a yellowish-white fascia on inner margin. Hind wing orange-yellow.

Hab. JAVA, Preanger, type + ♀ in Coll. Heylaerts. *Exp.* 54 millim.

407. *Agylla ruffrons*.

Churinga ruffrons, Moore, P. Z. S. 1878, p. 10, pl. i. f. 12; Hmps. Moths Ind. ii. p. 70; Kirby, Cat. Het. p. 315.

♂. Dull brown; palpi, head, tegulæ, and pectus orange; patagia fringed with orange; legs orange-yellow and brown; abdomen orange-yellow. Fore wing with pale yellow fasciæ on costa and inner margin, the former extending to beyond middle; cilia pale yellow at tips. Hind wing orange-yellow. Underside of fore wing with the terminal area yellow.

♀. Fore wing with very narrow yellow fasciæ on costa and inner margin.

Fore wing with veins 4, 5 from the cell, 6 from the areole; hind wing with veins 4, 5 from cell.

Hab. SIKHIM, 1 ♂ (*Mrs. Home*), 1 ♀ (*Lidderdale*), 1 ♀ Moore Coll., type. *Exp.*, ♂ 56, ♀ 60 millim.

408. *Agylla semirufa*. (Plate XXIV. fig. 14.)

Macrobrochis semirufa, Hmps. Moths Ind. iv. p. 493 (1896).

♂. Head, thorax, and fore wing deep fuscous brown, the palpi below and frons orange; tegulæ and fringes of patagia slightly mixed with orange; pectus orange; legs black and orange; abdomen orange tinged with fuscous on dorsum. Fore wing with narrow orange fascia on inner margin. Hind wing orange. Underside of fore wing with the costal and terminal areas orange.

Fore wing with veins 4, 5 from cell; 6 from upper angle; hind wing with veins 4, 5 from cell.

Hab. ASSAM, Khâsis, 1 ♂. *Exp.* 60 millim. Type + in Coll. Elwes.

SECT. II. Antennæ of male with bristles and cilia.

A. Fore wing of male with the costa fringed with short hair.

a. Fore wing of male with a large patch of androconia in cell below and fringes of long spatulate hairs below the cell; hind wing with a patch of rough hair in and beyond upper angle of cell; abdomen clothed with tufts of rough hair below.

409. *Agylla perpensa*.

Arva laticilia, Druce, B'ol. Centr.-Am., Het. i. p. 133 (part), nec Wlk.

Arva perpensa, Schaus, P. Z. S. 1894, p. 241; Druce, Biol. Centr.-Am., Het. ii. p. 401.

♂. White; palpi and legs tinged with fuscous, the tufts of hair on abdomen tinged with fulvous. Fore wing with the rough hair on costa pale fulvous; the inner area slightly tinged with fuscous, the patch of scales and tufts on underside of fore wing and upper-side of hind wing pale orange; underside with the termen of fore wing and costal area of hind wing tinged with fuscous.

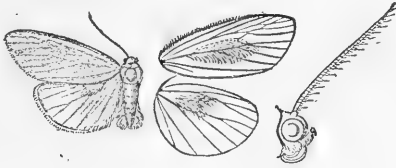


Fig. 116.—*Agylla perpensa*, ♂. 1.

Hab. MEXICO, Jalapa, 1 ♂ (*Hoege*), Misantla (*Godman*), 1 ♂, Vera Cruz (*H. H. Smith*), 1 ♂, Godman-Salvin Coll., Atoyac. *Exp.* 36 millim. Type ♀ in Coll. Schaus.

- b.* Fore wing of male with the costal area expanded at base, then folded over on underside; a fringe of long upturned hair below the cell on underside; hind wing with thick fringe of hair in and beyond upper part of cell on upperside.

410. *Agylla tumidicosta*, n. sp.

Areva laticilia, Druce, Biol. Centr.-Am., Het. i. p. 133 (part), nec Wlk.

♂. Head and thorax purplish fuscous; abdomen tinged with brown, the anal tufts pale orange. Fore wing white, the hair on basal part of costa blackish; the area below the cell and vein 2

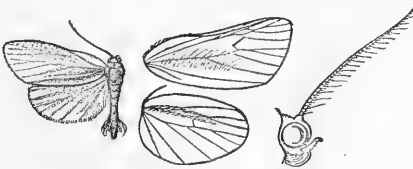


Fig. 117.—*Agylla tumidicosta*, ♂. 1.

purplish fuscous; the fringes of hair on underside of fore wing and upperside of hind wing pale orange. Hind wing with some fuscous suffusion on terminal area between vein 3 and tornus; underside of both wings with the terminal area suffused with fuscous.

♀. Fore wing narrower, the fuscous on inner area and on underside of terminal area narrower.

Hab. GUATEMALA (*Champion*), 3 ♂, 2 ♀, type Godman-Salvin Coll. *Exp.* 32-36 millim.

c. (*Salapola*). Fore wing of male with a fringe of long downturned spatulate scales from terminal part of median nervure, veins 4, 5 from cell in male; hind wing with the cell occupied by a patch of flocculent hair; the fore femora with tufts of hair; ventral surface of abdomen with tufts of long hair.

411. *Agylla argentea*.

Salapola argentea, Wlk. xxviii. 525 (1863); Kirby, Cat. Het. p. 920.

Salapola vestalis, Schaus, P. Z. S. 1894, p. 241.

♂. White; head and thorax slightly tinged with fuscous, abdomen with ochreous; fore legs fuscous, the tufts on femora and ventral surface of abdomen fulvous yellow. Fore wing silvery white; the fringe of hair on costa fulvous; the inner area pale



Fig. 118.—*Agylla argentea*, ♂. ½.

fuscous brown; the fringe of hair on underside dark brown, fulvous at base, the terminal area tinged with fuscous. Hind wing white, the disk tinged with ochreous, the tufts of hair in cell fulvous yellow.

♀. Fore wing with narrower fuscous fascia on inner area.

Ab. 1. *vestalis*. Fore wing with the terminal area on underside white; the tuft of hair sometimes entirely fulvous.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♂, 3 ♀, N. Friburgo, Petropolis, Rio Janeiro, 3 ♂, 3 ♀, type. *Exp.* 36-46 millim.

d. Fore and hind wings of male without fringes of hair in or below cell.

412. *Agylla barbicosta*, n. sp.

♂. White; head and thorax tinged with fuscous. Fore wing with the fringe on basal half of costa blackish; the wing suffused with pale brownish cream-colour to beyond middle; a wedge-shaped fuscous patch on terminal third of inner area. Hind wing white, the basal half suffused with yellowish cream-colour.

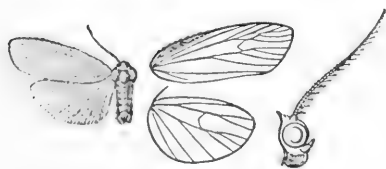


Fig. 119.—*Agylla barbicosta*, ♂. ½.

Hab. BRAZIL, Rio Janeiro (*Doer*), 4 ♂, type. *Exp.* 32 millim.

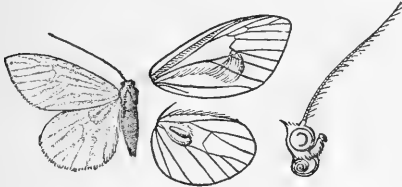
B. Fore wing of male without hair on costa.

- a. Fore wing of male with a costal fold on underside fringed with hair; a fringe of very long upturned hair on underside below the cell, below vein 2 developed into two ridges of still longer hair; hind wing with a ridge of flocculent white hair in medial part of cell, with a similar ridge of pale brown hair above it and a streak of black androconia above that.

***413. *Agylla polysemata*.**

Agylla polysemata, Schaus, J. N. Y. Ent. Soc. vii. p. 216 (1899).

♂. White; head, thorax, and abdomen tinged with fuscous; legs streaked with fuscous. Fore wing with the costal edge



blackish towards base; the inner area suffused with pale fuscous; the fringes of hair on underside pale fulvous towards extremity. Hind wing with the termen slightly tinged with fuscous.

Fig. 120.—*Agylla polysemata*, ♂. ½.

♀ with the wings rather whiter.

One male has the areole extremely minute.

Hab. BRAZIL, N. Friburgo, Petropolis, Rio Janeiro, Castro Paraña; type† in Coll. Schaus. *Exp.*, ♂ 34, ♀ 40 millim.

- b. Fore wing of male with a fascia of rough downturned hair below terminal two-thirds of cell on underside; hind wing with large tufts of flocculent hair in and beyond cell on upperside.

414. *Agylla fasciculata*.

Agylla fasciculata, Wlk. ii. 552 (1854); Kirby, Cat. Het. p. 440.

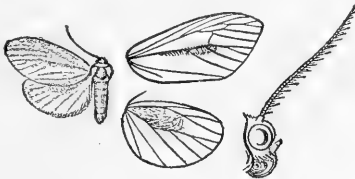


Fig. 121.—*Agylla fasciculata*, ♂. ½.

♂. Pure white; palpi blackish at tips; legs tinged with brown, fore legs blackish in front; wings with the tufts of hair ochreous.

Hab. VENEZUELA, 3 ♂, type. *Exp.* 30 millim.

- c. Fore wing narrow, with fringes of very long hair in cell and patch of rough scales beyond the cell; hind wing very ample, without sexual characters; palpi with downturned hair; abdomen with long lateral tufts on terminal segments.

415. *Agylla rotunda*, n. sp.

♂. Head and thorax fuscous; neck and antennæ ochreous; the

greater part of legs and the abdomen pale ochreous, the latter with the tufts on terminal segments deeper. Fore wing silvery white; the costal edge blackish towards base; the inner area suffused with

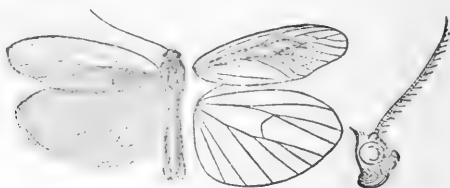


Fig. 122.—*Agylla rotunda*, ♂. $\frac{1}{4}$.

purplish fuscous to submedian fold; the interspaces between veins 2 and 5 suffused with fuscous. Hind wing white, tinged with ochreous especially on costal half; some brownish suffusion on termen between vein 2 and apex. Underside of fore wing with the costal half ochreous.

Hab. COLOMBIA, Bogotá; BOLIVIA, R. Tanampaya, Corvico (Garlepp), 1 ♂ type. *Exp.* 46 millim.

d. (*Crambomorpha*). Wings of male without fringes or tufts of hair.

*a*¹. Antennæ of male with 4 or 5 curved downturned spines on basal part of shaft; abdomen with lateral tufts of hair on last segment.

416. *Agylla nubens*.

Crambomorpha nubens, Schaus, J. N. Y. Ent. Soc. vii: p. 216 (1899).

♂. Head and thorax fuscous grey; antennæ orange except towards base; legs white; pectus in front and fore coxæ orange,

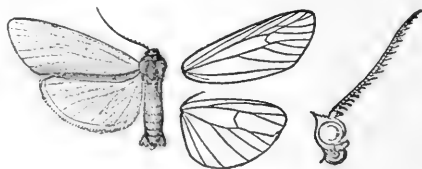


Fig. 123.—*Agylla nubens*, ♂. $\frac{1}{4}$.

fore tibiæ and tarsi streaked with fuscous; abdomen orange. Fore wing silky white; the costa tinged with yellow; the inner area fuscous. Hind wing white, the inner area tinged with yellow, the termen fuscous. Underside of fore wing fuscous with the costa orange; white streaks below the costa and in and beyond end of cell.

♀. Pectus and fore coxæ white; abdomen tinged with yellow; fore wing without yellow on costa, the underside white with the inner and terminal areas suffused with fuscous.

Hab. MEXICO, Jalapa, 1 ♂, 1 ♀, type† in Coll. Schaus. *Exp.* 38-42 millim.

b¹. Antennæ of male normal.

a². Abdomen of male with long lateral tufts of hair on terminal segment.

a³. Fore wing of male with the costal edge turned over and thickened by rough scales; hind wing with patch of androconia below and beyond lower angle of cell.

417. *Agylla involuta*, n. sp.

♂. Head and thorax fuscous; legs fuscous and white; abdomen pale fuscous, the anal tufts brown. Fore wing silvery white; the costal edge blackish towards base; the costal area tinged with ochreous at middle; the inner area purplish fuscous. Hind wing pale yellowish. Underside of fore wing with the terminal area suffused with fuscous; hind wing with the patch of androconia fulvous.

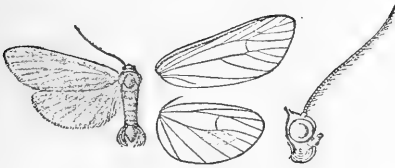


Fig. 124.—*Agylla involuta*, ♂. †.

Hab. BRAZIL, Petropolis, 1 ♂ type, Castro Paraña, 1 ♂. *Exp.* 36 millim.

b³. Fore wing of male with the costa normal; hind wing without patch of androconia.

a⁴. Abdomen of male with the anal tufts black. *marginata*.

b⁴. Abdomen of male with the anal tufts fuscous; palpi with downturned hair..... *barbipalpia*.

c⁴. Abdomen of male with the anal tufts orange or whitish.

a⁵. Fore wing white.

a⁶. Underside of fore wing of male tinged with yellow.

a⁷. Tegulæ with an orange band..... *tobera*.

b⁷. Tegulæ without orange band..... *maasseni*.

a⁸. Hind wing white.

b⁸. Hind wing of male tinged with yellow, the apex produced *doguini*.

b⁶. Underside of fore wing of male white. *sericea*.

b⁵. Fore wing ochreous.

a⁶. Fore wing with red stripe in submedian fold.

a⁷. Fore wing with the fuscous extending above the red stripe in submedian fold..... *auraria* (♀).

b⁷. Fore wing with the fuscous not extending above the red stripe *umbrifera* (♀).

- b*⁶. Fore wing without red stripe in submedian fold.
*a*⁷. Tegulæ red; fore wing without fuscous suffusion on costal half of wing *hermanilla*.
*b*⁷. Tegulæ ochreous; fore wing without fuscous suffusion on costal half of wing *flavitincta*.
*c*⁷. Tegulæ orange; fore wing with fuscous suffusion on costal half of wing *strigula*.

418. *Agylla marginata*. (Plate XXIV. fig. 8.)

Agylla marginata, Druce, Biol. Centr.-Am., Het. i. p. 133 (1885); Kirby, Cat. Het. p. 338.

♂. Head, thorax, and abdomen purplish fuscous; palpi yellowish; frons and antennæ whitish; abdomen with the anal tufts black. Fore wing white, the costal area tinged with yellow; the inner area purplish fuscous; underside with patch of ochreous scales on medial costal area. Hind wing white.

♀. Underside of fore wing and costal area of hind wing fuscous.

Hab. MEXICO, Oajaca, 1 ♀, Atoyac (*Smith, Schumann*), ♂ ♀, Jalapa (*Trujillo*), 1 ♀; GUATEMALA (*Champion*), 1 ♂, 2 ♀, type; COSTA RICA (*Rogers*), 7 ♀, Godman-Salvin Coll. *Exp.*, ♂ 26, ♀ 34 millim.

*419. *Agylla barbipalpia*. (Plate XXIII. fig. 25.)

Agylla barbipalpia, Schaus, J. N. Y. Ent. Soc. vii. p. 216 (1899).

♂. Head and thorax fuscous and white; palpi clothed with downturned hair; fore legs fuscous; pectus and mid and hind legs white; abdomen dirty white, the anal tufts tinged with fuscous, the ventral surface with ochreous. Fore wing silvery white tinged with ochreous, the costal edge ochreous, blackish towards base; the inner area purplish fuscous. Hind wing dirty white. Underside of fore wing ochreous, the terminal half suffused with fuscous. Hind wing with the costal and terminal areas tinged with yellowish.

Hab. BRAZIL, Castro Paraña, type † in Coll. Schaus. *Exp.* 36 millim.

420. *Agylla tobera*.

Crambomorpha tobera, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 126 (1894); id. Lép. Loja, p. 108, pl. 11. ff. 11, 11 a.

♂. Head and thorax fuscous; palpi orange, black at tips; antennæ orange; tegulæ orange in front; pectus and legs orange, fore and mid tibiæ and tarsi streaked with fuscous; abdomen orange, brownish towards base. Fore wing silvery white; the costal edge orange; the inner area fuscous; underside tinged with orange, the terminal area tinged with fuscous. Hind wing white.

♀ without orange on tegulæ, abdomen, or costa and underside of fore wing.

Hab. ECUADOR, Loja, 1 ♂, type † ♂ in Coll. Dognin; BOLIVIA, Chaco (*Garlepp*), 1 ♂, 1 ♀. *Exp.* 38 millim.

421. *Agylla maasseni*.

Lithosia argentea, Maassen, Stübel's Reisen S. Am., Lep. p. 130, pl. iv. f. 25 (1890); Kirby, Cat. Het. p. 326 (nec Wlk.).

Crambomorpha umbriferæ, Druce, Biol. Centr.-Am., Het. i. p. 132 part (nec Feld.).

Crambomorpha maasseni, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 126 (1894); id. Léop. Loja, p. 108, pl. 11. ff. 12, 12 a.

♂. Head, thorax, and abdomen white tinged with fuscous; palpi and frons darker fuscous; anal tufts yellowish white. Fore

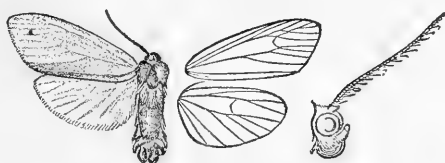


Fig. 125.—*Agylla maasseni*, ♂. †.

wing yellowish white; the inner area pale fuscous; the underside orange-yellow, the terminal area fuscous. Hind wing white. Palpi clothed with downcurved hair.

♀. Abdomen usually more fuscous; fore wing with the fascia on inner area darker; the underside white, tinged with fuscous towards termen.

Hab. PANAMA, Bugaba (*Champion*), 1 ♀, Godman-Salvin Coll.; COLOMBIA, Bogota; VENEZUELA, Aroa, 2 ♂, 1 ♀; ECUADOR, Loja, 3 ♀. *Exp.* 44 millim.

422. *Agylla dognini*, n. sp. (Plate XXIV. fig. 24.)

♂. Head and thorax fuscous; antennæ orange; abdomen yellowish white, slightly tinged with fuscous on dorsum, the anal tufts very large. Fore wing white; the inner area fuscous up to the cell and vein 2; the costal edge ochreous, fuscous towards base. Hind wing yellowish white, the apex produced and the termen excised below it. Underside of fore wing yellowish, sometimes almost entirely suffused with fuscous.

♀. Hind wing and underside of fore wing white.

Hab. BOLIVIA, Corvico, 1 ♂ type, R. Tanampaya (*Garlepp*). ♀ in Coll. Staudinger. *Exp.* 48 millim.

423. *Agylla sericea*.

Crambomorpha sericea, Druce, Biol. Centr.-Am., Het. i. p. 132 (1885); Kirby, Cat. Het. p. 337.

Miza galactina, Maassen, Stübel's Reisen S. Am., Lep. pp. 67, 131, pl. 4. f. 27 (1890); Kirby, Cat. Het. p. 338.

Gnophria limpida, Möschl. Abh. Senck. Ges. xvi. p. 117 (1890); Kirby, Cat. Het. p. 315.

Crambidia petrola, Schaus, P. Z. S. 1894, p. 240.

♂. White; head, thorax, and abdomen tinged with fuscous; the anal tufts yellowish. Fore wing with the costa narrowly fuscous, the inner area slightly tinged with fuscous.

♀. Abdomen white; fore wing with the inner area more strongly fuscous.

Ab. 1. *petrola*. Thorax and inner area of fore wing more strongly tinged with fuscous.—Brazil, Bolivia.

Hab. MEXICO, Tabasco (*H. H. Smith*), 2 ♀, Jalapa (*Hoega*), 2 ♀, type; GUATEMALA (*Champion*), 1 ♂, 2 ♀, Godman-Salvin Coll.; PORTO RICO, type† ♂ *limpida* in Coll. Staudinger; COLOMBIA, Bogotá, 1 ♀, Zell. Coll.; BRAZIL, Rio Janeiro, 1 ♂, 3 ♀; type† *petrola* in Coll. Schaus; BOLIVIA, Rio Songo; PERU, Chanchamayo. *Exp.* 30–34 millim.

*424. *Agylla auraria*.

Crambomorpha auraria, Dognin, Le Nat. 1892, p. 169; id. Lép. Loja, p. 89, pl. 9. f. 6.

♀. Palpi, frons, antennæ, tegulæ, and patches on patagia brick-red; 3rd joint of palpi, vertex of head, and thorax dark slate-blue; pectus, legs, and abdomen ochreous, tibiæ and tarsi fuscous. Fore wing ochreous, the inner area to the cell and vein 2 dark slate-colour, with a brick-red stripe in submedian fold from base to beyond middle. Hind wing pale ochreous.

Ab. 1. Abdomen above and inner area of hind wing fuscous black.—Bolivia.

Hab. ECUADOR, Loja, type† ♀ in Coll. Dognin; BOLIVIA, Chaco. *Exp.* 50 millim.

425. *Agylla umbrifera*.

Crambomorpha umbrifera, Feld. Reis. Nov. pl. 106. f. 9 (1874); Kirby, Cat. Het. p. 337.

♀. Head and thorax dark slate-colour; palpi except at tips, frons, antennæ, base of tegulæ, and outer side of patagia orange-red; pectus, legs, and abdomen orange. Fore wing pale orange-yellow; a diffused orange-red stripe in submedian fold, the area below it dark slate-colour. Hind wing pale yellowish.

Hab. COLOMBIA, Bogota, type† ♀ in Coll. Rothschild; VENEZUELA, Merida, 1 ♀; BOLIVIA, Chaco. *Exp.* 42–54 millim.

*426. *Agylla hermanilla*.

Crambomorpha hermanilla, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 127 (1894); id. Léop. Loja, p. 108, pl. 11. f. 14.

♂. Ochreous; 3rd joint of palpi, vertex of head, and thorax dark slate-colour; tegulæ and outer part of patagia deep brick-red; tibiæ and tarsi fuscous. Fore wing with the inner area to the submedian fold dark slate-colour.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 38 millim.

*427. *Agylla flavitincta*. (Plate XXIII. fig. 10.)

Agylla flavitincta, Dognin, Ann. Soc. Ent. Belge, xliii. p. 133 (1899).

♂. Pale ochreous. Fore wing with the inner area suffused with purplish fuscous extending up to the cell beyond middle of wing.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 42 millim.

428. *Agylla strigula*, n. sp. (Plate XXIV. fig. 3.)

♂. Head and thorax fuscous with a slight bluish gloss; palpi partly orange; tegulæ orange in front; coxæ, hind legs, and abdomen orange-fulvous. Fore wing orange-yellow suffused with fuscous grey, leaving some diffused orange on costal area, on the median nervure, and a fascia in basal half of submedian fold. Hind wing orange-yellow, tinged with brown except at inner margin.

♀. Hind wing yellow.

Hab. BOLIVIA, Corvico (*Garlepp*), 1 ♂, 1 ♀ type. *Exp.* 50 millim.

♂. Abdomen of male with the claspers immensely developed and long, without lateral tufts of hair.

429. *Agylla separata*.

Crambomorpha umbrifera, Druce, Biol. Centr.-Am., Het. i. p. 132 (part), nec Feld.

Choria separata, Schaus, P. Z. S. 1894, p. 240.

♂. Palpi orange, black at tips; frons black; vertex of head, antennæ, tegulæ, patagia, pectus, and legs orange; thorax fuscous; fore legs streaked with fuscous; abdomen orange. Fore wing silky white, the costal edge orange, black towards base; the area below vein 1 fuscous, some ochreous suffusion



Fig. 126.—*Agylla separata*, ♂. †.

above vein 1. Hind wing yellowish white with fuscous apical patch.

♀. Abdomen with black dorsal spot on terminal segment; fore wing without orange on costa or ochreous above vein 1; hind wing white, with hardly a trace of apical patch.

Hab. PANAMA, Chiriqui (*Champion*), 1 ♂, Godman-Salvin Coll.; BRAZIL, São Paulo (*Jones*), 2 ♀, Castro Paraña, 4 ♂, 3 ♀, type † in Coll. Schaus; BOLIVIA, Chaco. *Exp.* 34 millim.

*c*². (*Tripura*). Abdomen of male with the anal segment normal.

*a*³. Fore wing white, with the inner area fuscous or brown.

*a*⁴. Fore wing with the inner area fuscous, emitting a curved tooth to cell *dentifera*.

*b*⁴. Fore wing with the inner area red-brown, emitting an oblique tooth to cell..... *obliquisigna*.

*c*⁴. Fore wing with no dentate mark from inner area.

*a*⁵. Hind wing yellowish.

*a*⁶. Abdomen fuscous *tolteca*.

*b*⁶. Abdomen whitish *corcovada*.

*b*⁵. Hind wing pale brown *albocinerea*.

*b*³. Fore wing yellowish with the inner area fuscous. *umbrosa* (♀).

*c*³. Fore wing white or yellowish, the inner area not fuscous or brown.

*a*⁴. Fore wing with the ground-colour white.

*a*⁵. Tegulæ orange.

*a*⁶. Thorax dark; fore wing with prominent dark purple-black streaks on the veins. *prasena*.

*b*⁶. Thorax white; fore wing with the veins hardly darker *pallens*.

*b*⁷. Tegulæ not orange.

*a*⁶. Fore wing with postmedial black band in male, in female reduced to a spot. *ramelana*.

*b*⁶. Fore wing with the terminal half black. *bipars*.

*b*⁴. Fore wing pale yellow.

*a*³. Hind wing with black terminal patches. *maculata*.

*b*⁵. Hind wing without black patches..... *sinensis*.

*d*³. Fore wing grey, with the veins streaked with white *venosa*.

*c*³. Fore wing fuscous, with yellow costal fascia.

*a*⁴. Fore wing with the costal fascia reaching the base.

*a*⁵. Head yellow..... *gigantea*.

*b*⁵. Head dark *collitoides*.

*b*⁴. Fore wing with the costal fascia not reaching the base; head of male dark..... *postfusca*.

430. *Agylla dentifera*, n. sp. (Plate XXIII. fig. 9.)

♂. Head and thorax dark brown; palpi except tips, antennæ, pectus, and legs orange, fore legs streaked with fuscous; abdomen orange. Fore wing silvery white; the costa orange; the inner area purple-brown, emitting at middle a strong curved tooth to median nervure; cilia pale brown. Hind wing yellowish white.

Hab. ECUADOR, Alpayaco (*Stewart*), 1 ♂ type. *Exp.* 36 millim.

* 431. *Agylla obliquisigna*. (Plate XXIV. fig. 20.)

Agylla obliquisigna, Schaus. J. N. Y. Ent. Soc. vii. p. 216 (1899).

♂. Head and thorax reddish brown; abdomen and mid and hind legs ochreous. Fore wing pale ochreous; the costal edge fulvous, blackish towards base; the inner area suffused with red-brown, with an oblique dark dentate mark from inner margin beyond middle to origin of vein 2; underside suffused with fuscous, the outer half of costa and termen orange-fulvous. Hind wing yellowish white.

Hab. COLOMBIA, type † in Coll. Schaus. *Exp.* 34 millim.

432. *Agylla tolteca*.

Crambomorpha tolteca, Schaus, Ent. Am. v. p. 191 (1889); Druce, Biol. Centr.-Am., Het. ii. p. 401, pl. 78. f. 15; Kirby, Cat. Het. p. 337.

♂. Head, thorax, and abdomen pale fuscous; palpi except at tips, antennæ, legs, and anal tufts ochreous. Fore wing silvery white; the costal edge yellowish; the inner area suffused with fuscous brown; underside fuscous, with a large postmedial patch of yellowish scales from costa to vein 2. Hind wing dull ochreous.

Hab. MEXICO, Jalapa (*Trujillo*) 1 ♂, Coatepec (*Brooks*) 1 ♂, Guerrero (*H. H. Smith*), 1 ♂, Godman-Salvin Coll.; BRAZIL, Sta. Catharina. *Exp.* 34 millim. Type † in Coll. Schaus.

433. *Agylla corcovada*. (Plate XXIV. fig. 9.)

Crambidia corcovada, Schaus, P. Z. S. 1894, p. 240.

♂. White; head, thorax, and fore legs tinged with pale fuscous; palpi, antennæ, and mid and hind legs pale yellow; abdomen whitish, the anal tufts pale yellow. Fore wing with the basal half of costal edge black, the terminal half fuscous, the inner area suffused with fuscous; underside suffused with yellowish scales to beyond middle and on costa to near apex. Hind wing pale yellowish.

♀ with the costa of fore wing and the hind wing white.

Hab. BRAZIL, Rio Janeiro, 1 ♂, 1 ♀, Petropolis, 1 ♂; BOLIVIA, Chaco. *Exp.* 26 millim. Type † in Coll. Schaus.

434. *Agylla albocinerea*.

Ghonia albocinerea, Moore, P. Z. S. 1878, p. 13, pl. i. f. 10; Hmps. Moths Ind. ii. p. 70; Kirby, Cat. Het. p. 316.

Ghonia sericeipennis, Moore, P. Z. S. 1878, p. 13; Hmps. Moths Ind. ii. p. 69; Kirby, Cat. Het. p. 316.

♂. Head pale yellow; palpi, frons, and antennæ brown; thorax brown, the tegulæ and base of patagia pale yellow; abdomen grey-brown, the anal tuft yellowish. Fore wing silky white, the inner area, costal edge, and cilia brown. Hind wing pale brown, the cilia white. Underside of fore wing brown; hind wing pale, the costal half suffused with brown.

♀. Hind wing white.

Ab. 1. *sericeipennis*. Head fuscous; hind wing white, with the apical area brown in male, wholly white in female.



Fig. 127.—*Agylla albocinerea*, ♀. ♂. (From Moths Ind. vol. ii.)

Hab. SIKHIM, Moore Coll., 3 ♂, type and type *sericeipennis*, (Lidderdale) 2 ♀. *Exp.*, ♂ 36, ♀ 40 millim.

* 435. *Agylla umbrosa*.

Crambomorpha umbrosa, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 127 (1894); id. Léop. Loja, p. 109, pl. 11. f. 13.

♀. Head and thorax fuscous brown; palpi, lower part of frons, pectus, and greater part of legs ochreous; abdomen ochreous, dorsally tinged with fuscous. Fore wing ochreous, with the inner area to cell and just above vein 2 fuscous brown. Hind wing pale ochreous.

Hab. ECUADOR, Loja, 1 ♀, type† in Coll. Dognin. *Exp.* 32 millim.

436. *Agylla prasena*.

Tripura prasena, Moore, Lep. E. I. C. p. 299, pl. 7 a. f. 6 (1859); Hmps. Moths Ind. ii. p. 66; Kirby, Cat. Het. p. 336.

Head and thorax metallic blue-black; tegulæ, pectus, and coxæ orange; abdomen blue-black, greyish towards base, the anal tuft often tinged with orange; the ventral surface orange. Fore wing with the ground-colour white, with broad metallic blue-black streaks on the veins; the basal half of cell and the costal area to end of cell dark; a discoidal patch and a patch at apex; the terminal half of inner area dark. Hind wing white, the termen black, more or less expanding into a patch and streaks on the veins towards apex.

Fore wing with veins 4, 5 from cell, 6 from angle of cell; hind wing with veins 4, 5 from cell.

Hab. N.W. HIMALAYAS, Dalhousie (*Harford*), 1 ♂, Kangra (*Hocking*), 2 ♂; SIKHIM, 1 ♂, 1 ♀, type; ASSAM, Naga Hills. *Exp.* 52–58 millim.

437. *Agylla pallens*. (Plate XXIV. fig. 1.)

Macroborchis pallens, Hmps. Moths Ind. ii. p. 66 (1894).

Dull white; frons blue-black; palpi, vertex of head, and tegulæ orange; legs orange and blue-black; abdomen blue-black, dorsally clothed with grey hair towards base; the anal tuft of male tinged with yellow, the ventral surface orange. Fore wing with the basal half

of costa dark, the terminal half yellowish; the veins slightly streaked with pale brown. Hind wing with the veins more prominently dark; the inner area tinged with fuscous. Underside of fore wing tinged with fuscous to beyond middle.

Fore wing with veins 4, 5 from cell; hind wing with veins 4, 5 from cell.

Hab. N.W. HIMALAYAS, Simla, 1 ♀, Dalhousie, 3 ♂, 1 ♀ (*Harford*), type. *Exp.*, ♂ 46, ♀ 54 millim.

438. *Agylla ramelana*. (Plate XXIV. fig. 18.)

Lithosia ramelana, Moore, P. Z. S. 1865, p. 798; Hmps. Moths Ind. ii. p. 68; Kirby, Cat. Het. p. 315.

Gnophria quadrimaculata, Möschl. Stett. ent. Zeit. xxxiii. p. 352 (1872).

♂. Pure white; palpi above, a bar across frons, and antennæ black; legs with end of femora, stripes on outer side of fore and mid tibiæ, and bands on tarsal joints black. Fore wing with oblique postmedial purplish-brown band expanding between veins 5 and 2 and sometimes obsolete towards costa; the apical part of costa and termen black. Hind wing with purplish-black spot beyond lower angle of cell between veins 5 and 2.

Ab. 1. Fore wing with the band narrow and almost even.—BORNEO.

♀. Fore wing with the postmedial band reduced to a spot at lower angle of cell.

Ab. 2. Fore and hind wings with the black spots absent.—JAVA.

Hab. SIKHIM, Moore Coll., type (*Lidderdale*, *Dudgeon*); ASSAM, Khâsis; BORNEO, Kina Balu (*Waterstradt*); JAVA, Vulcan Gêde. *Exp.*, ♂ 44–50, ♀ 52–60 millim.

439. *Agylla bipars*.

Vamuna bipars, Moore, P. Z. S. 1878, p. 10, pl. i. f. 11; Hmps. Moths Ind. ii. p. 68; Kirby, Cat. Het. p. 315.

♂. Head black, the vertex white; thorax dirty white; pectus orange; legs black; abdomen dirty white, tinged with orange towards extremity and on ventral surface. Fore wing with the basal half dirty white, the costa and terminal half black-brown. Hind wing dirty white, with diffused subterminal brownish band expanding into a large blackish spot below vein 5.

Hab. SIKHIM, Moore Coll., 2 ♂, type. *Exp.* 54 millim.

440. *Agylla maculata*.

Vamuna maculata, Moore, P. Z. S. 1878, p. 10, pl. i. f. 5; Hmps. Moths Ind. ii. p. 68; Kirby, Cat. Het. p. 315.

♂. Head black, the vertex yellowish; palpi orange at base; thorax and abdomen yellowish, the latter orange towards extremity; legs striped with black. Fore wing pale yellow. Hind wing pale orange, the terminal area white, with large blackish subterminal

patches at apex and below vein 5 and a spot towards tornus. Under-side of fore wing with black subbasal streak below cell; a post-medial black band broad towards costa, narrow towards inner margin, and not quite reaching either.

♀ paler, with the black markings all reduced and no black at apex of hind wing.

Hab. SIKHIM, Moore Coll., 1 ♂ type. *Exp.*, ♂ 46, ♀ 55 millim.

*441. *Agylla sinensis*. (Plate XXIV. fig. 5.)

Gnophria sinensis, Leech, Trans. Ent. Soc. 1899, p. 178.

♂. Ochreous; abdomen greyish towards base; legs tinged with fuscous. Fore wing with the costal edge black towards base; very indistinct obliquely placed fuscous spots in end of cell and in submedian fold. Hind wing yellowish white. Underside of fore wing tinged with fuscous except the marginal areas.

Hab. W. CHINA, Chia-kou-ho, 1 ♂ type† in Coll. Leech. *Exp.* 36 millim.

442. *Agylla venosa*. (Plate XXIII. fig. 26.)

Lithosia venosa, Schaus, P. Z. S. 1894, p. 239.

Head, thorax, and abdomen grey; palpi, frons, base of antennæ, and coxæ orange; metathorax with whitish patch. Fore wing grey; the costal edge blackish; a white fascia below basal half of costa, attenuated to a point at middle; the veins all streaked with white; cilia white. Hind wing white, the costal area fuscous.

Hab. BRAZIL, Castro Paraña, 2 ♂, 2 ♀. *Exp.* 32 millim. Type† in Coll. Schaus.

443. *Agylla gigantea*.

Lithosia gigantea, Oberth. Diagn. Léop. Askold. p. 6 (1879); id. Ét. Ent. v. p. 29, pl. i. f. 6; Kirby, Cat. Het. p. 323.

♂. Head and tegulæ orange-yellow; antennæ fuscous; thorax and abdomen grey-brown; the coxæ, femora, and a ventral stripe yellow; anal tufts yellowish at tips; wings grey-brown. Fore wing with broad yellow costal fascia, fining to a point at apex, the costal edge dark towards base.

Hab. SIBERIA, Askold; JAPAN, Hakodate (*Andrews*), 1 ♂. *Exp.* 40 millim.

444. *Agylla collitoides*. (Plate XXIII. fig. 14.)

Ghonia collitoides, Butl. Cist. Ent. iii. p. 115 (1885); Kirby, Cat. Het. p. 316.

Blackish brown; tegulæ orange; pectus, coxæ, and base of femora orange. Fore wing suffused with cupreous; the costal edge black towards base; an orange costal fascia attenuated to a point before apex. Abdomen and hind wing greyish fuscous.

Hab. AMUR, 1 ♂; JAPAN (*Lewis*), 2 ♀ type, Nikko (*Pryer*), 1 ♀. *Exp.*, ♂ 44, ♀ 46 millim.

445. *Agylla postfusca*. (Plate XXIII. fig. 13.)*Gnophria postfusca*, Hmps. Moths Ind. ii. p. 70 (1894).*Gnophria collitoides*, Hmps. Moths Ind. iv. p. 494 (1896), nec Butl.

Fuscous-brown; palpi, tegulæ, coxæ, and femora orange or orange-red; abdomen with orange ventral fascia. Fore wing with narrow yellow costal fascia from near base to near apex. Hind wing paler fuscous.

Hab. N.W. HIMALAYAS, Dalhousie, Moore Coll., 2 ♂, type; TIBET, Yatong (*Bingham*), 4 ♂, 2 ♀. *Exp.*, ♂ 36, ♀ 38 millim.

Genus **NEAGYLLA**, nov.

Type, *N. nevosa*.

Proboscis fully developed; palpi upturned, not reaching vertex of head, and clothed with downturned hair; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; fore coxæ and femora with fringes of long hair and tufts from below the shoulders; abdomen clothed with rough hair, long lateral tufts from near extremity. Fore wing narrow; vein 2 from beyond middle of cell; 3 from before angle; 5 from above angle; the discocellulars strongly curved; 6 from below upper angle; 7, 8 stalked; 9, 10 stalked from 7, 8; 11 free; a large patch of thick flocculent hair on underside in and beyond end of cell, met by a fringe of long hair from inner margin. Hind wing very ample; vein 2 from middle of cell; 3, 4, 5 stalked; 6, 7 stalked; 8 from middle of cell, strongly arched.

*446. *Neagylla nevosa*.

Areva nevosa, Dognin, Ann. Soc. Ent. Belge, xxxviii. p. 128 (1894); id. *Lép. Loja* p. 110, pl. 11. ff. 18, 19.

♂. Silvery white; palpi brown; head and thorax tinged with fuscous; the fringes of hair on pectus and fore legs fulvous yellow; abdomen tinged with yellow. Fore wing with the costa tinged with

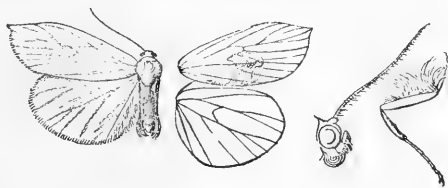


Fig. 128.—*Neagylla nevosa*, ♂. $\frac{1}{2}$.

yellowish. Hind wing with the costal area, and underside of fore wing with the costal and terminal areas tinged with fuscous.

♀ without any yellow tints; the costal area of hind wing not fuscous.

Hab. ECUADOR, Loja, type ♂ in Coll. Dognin. *Exp.*, ♂ 40, ♀ 46 millim.

Genus **PARAGYLLA**, nov.

Type, *P. amourelî*.

Proboscis fully developed; palpi upturned, not reaching vertex of head antennæ of male with long bristles and cilia; tibiæ with the spurs moderate

abdomen clothed with rough hair; the claspers of male clothed with large tufts of hair. Fore wing long and narrow; vein 2 from middle of cell; 3 from before angle; 5 from above angle in male, stalked with 4 in female; 7, 8 stalked; 9, 10 stalked; 11 free, oblique; male with fringes of very long hair on underside in cell, met by a fringe of hair on inner area extending from middle to near termen, the neuration distorted. Hind wing with vein 2 from middle of cell; 3 from close to angle; 4, 5 stalked; 6, 7 from angle of cell and curved in male, or shortly stalked, stalked in female; 8 from near middle of cell; the costal area of male expanded.

- A. Wings pale orange-yellow..... *amourelæ*.
 B. Wings whitish *endophæa*.

447. *Paragylla amourelæ*.

Areva amourelæ, Dognin, Le Nat. (2) iv. p. 128 (1890); id. Lép. Loja, p. 52, pl. 4. f. 16; Kirby, Cat. Het. p. 338.

Uniform orange-yellow; hind wing slightly paler.

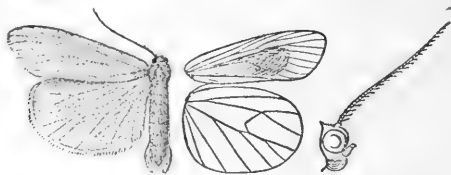


Fig. 129.—*Paragylla amourelæ*, ♂. 1.

Hab. ECUADOR, Loja, 2 ♂, 2 ♀. *Exp.* 44 millim. Type † in Coll. Dognin.

448. *Paragylla endophæa*. (Plate XXIV. fig. 7.)

Paragylla endophæa, Dognin, Ann. Soc. Ent. Belge, xliii. p. 132 (1899).

♂. Whitish; head, thorax, and abdomen tinged with fuscous; antennæ fulvous; abdomen with the terminal segment and ventral surface fulvous yellow. Fore wing with the costal edge blackish towards base; the inner area suffused with fuscous, a slight patch in end of cell and obscure streaks between the veins of terminal area. Hind wing with the costal and terminal areas tinged with fuscous.

♀. Abdomen without fulvous tinge; fore wing pure white, the area below submedian fold fuscous; hind wing pure white.

Hab. ECUADOR, Loja, 1 ♀, type † ♂ ♀ in Coll. Dognin. *Exp.* 34 millim.

Genus **NEPHELOSIA**, nov.

Type, *N. cæcina*.

Proboscis fully developed; palpi short, porrect, not reaching beyond frons, which is rounded; antennæ of female ciliated; tibiæ with the spurs moderate. Fore wing narrow, the costa arched, the termen oblique; vein 2 from well before angle of cell; 3 from angle; 4, 5 on a long stalk; 6, 7, 8, 9 stalked; 10 free; 11 becoming coincident with 12. Hind wing with vein 2 from long before angle of cell; 3, 4 strongly stalked; 5 absent; 6, 7 coincident; 8 from well beyond middle of cell.

449. *Nephelosia cæcina*.

Lithosia cæcina, Druce, Biol. Centr.-Am., Het. ii. p. 400, pl. 78. f. 7 (1897).

♀. Head and thorax grey and fuscous; abdomen fuscous, the anal tuft ochreous. Fore wing whitish, the basal half suffused with fuscous and irrorated with black; a blackish patch below the cell from middle to near tornus running up beyond the cell to vein 5; cilia tinged with fuscous. Hind wing fuscous black. Under-



Fig. 130.—*Nephelosia cæcina*, ♀. $\frac{3}{2}$.

side fuscous, with the terminal area of fore wing and apex of hind wing black.

Hab. GUATEMALA, San Isidro, 1600 ft. (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 20 millim.

Genus AREVA.

Areva, Wlk. ii. 525 (1854) Type. *laticilia*.

Protocis fully developed; palpi porrect, clothed with rough hair and extending to just beyond frons; antennæ of male with long bristles and cilia; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow, vein 2 from middle of cell; 3 from well before angle; 4, 5 stalked; the discocellulars very oblique; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from middle of cell; 3, 4 shortly stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing of male with fringe of very long hair on underside from base of median nervure to upper angle, covered by the lobed costa of hind wing; the upper angle of cell produced, and the discocellulars almost in line with median nervure.

450. *Areva laticilia*.

Areva laticilia, Wlk. ii. 526 (1854); Kirby, Cat. Het. p. 338.

Areva jubata, Feld. Reis. Nov. pl. 139. f. 52 (1875).

♂. White; palpi, lower part of frons, vertex of head, and thorax fuscous brown. Fore wing with the costal edge brown, the inner

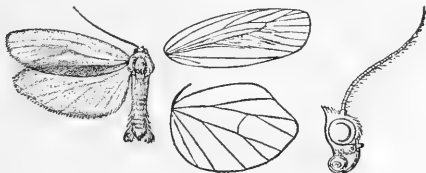


Fig. 131.—*Areva laticilia*, ♂. $\frac{1}{2}$.

area brown, diffused upward to vein 4 and leaving a streak of white below the cell and on part of vein 2. Hind wing slightly tinged with yellow and the termen with brown.

♀. Fore wing brown below submedian fold only.

Hab. VENEZUELA, 2 ♀, 1 ♂, type, type † *jubata* in Coll. Rothschild. *Exp.* 40 millim.

SECT. II. Wings of male normal.

- A. Thorax wholly white above *subfulgens*.
 B. Thorax fuscous, with white patches *trigemmis*.

451. *Areva subfulgens*. (Plate XXIV. fig. 21.)

Illice subfulgens, Schaus, J. N. Y. Ent. Soc. iv. p. 151 (1896).

♂. Palpi, frons, and antennæ fuscous; vertex of head and thorax yellowish white; pectus, legs, and abdomen fuscous. Fore wing fuscous with a cupreous tinge; a broad yellowish-white fascia on inner margin; a medial band expanding towards costa and a terminal band not quite reaching costa. Hind wing fuscous, the basal half and inner area to near tornus whitish.

Hab. BRAZIL, São Paulo (*Jones*), 2 ♂. *Exp.* 30 millim. Type† in Coll. Schaus.

452. *Areva trigemmis*.

Trichromia trigemmis, Hübn. Zutr. Ex. Schmiett. iii. p. 22, ff. 477, 478 (1827); Kirby, Cat. Het. ii. p. 290.

Lithosia ziza, Druce, Biol. Centr.-Am., Het. ii. p. 400, pl. 78. f. 11 (1897).

Head, thorax, and abdomen fuscous; tegulæ and extremity of patagia whitish; mesothorax, and often the vertex of head, with whitish patches. Fore wing fuscous with cupreous and purplish reflections; a whitish fascia on basal half of inner margin; a medial spot below costa, another above sub-



Fig. 132.—*Areva trigemmis*, ♂. †.

median fold, and an elongate spot below vein 1 extending more or less towards tornus; a spot on middle of termen. Hind wing fuscous, the basal half whitish.

Hab. MEXICO, Orizaba (*Schaus*), type† *ziza* in Coll. Schaus; HAITI; BRAZIL, Espiritu Santo, 1 ♂. *Exp.* 32 millim.

Genus **METAREVA**, nov.

Type, *M. ænescens*.

Proboscis fully developed; palpi upturned, short; antennæ of female ciliated; tibiæ with the spurs moderate. Fore wing with vein 2 from beyond middle of cell, curved at base; 3 from angle; 4, 5 stalked; 9 from 10 anastomosing with 8 to form the areole, 6 from the areole; 11 free, curved and approximated to 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

453. *Metareva ænescens*, n. sp.

♀. Head, thorax, and abdomen fuscous brown; head and patagia tinged with blue; tegulæ, patagia, and thorax with whitish patches. Fore wing ænescent brown; an ill-defined whitish subbasal patch on inner area; another in end of cell conjoined to a spot below the

cell nearer the base, which again is conjoined to an elongate spot on inner area; a somewhat triangular spot beyond the cell, and a



Fig. 133.—*Metareva ænescens*, ♀. 1.

subterminal patch between veins 3 and 5. Hind wing fuscous, with a large diffused whitish patch below the cell.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♀ type. *Exp.* 40 millim.

Genus **LAMPROSIA**, nov.

Type, *L. eborella*.

Proboscis fully developed; palpi upturned, closely approximated to and reaching middle of frons, which is rounded and rather roughly scaled; antennæ of male with cilia and bristles; tibiæ with the spurs rather short; abdomen clothed with rough hair. Fore wing long and narrow, the costa arched towards apex; termen short; vein 2 from middle of cell, curved at base; 3, 4, 5 shortly stalked; 9 arising from 10 and anastomosing with 8 to form the areole; 6 from areole, 7 from end of it; 11 anastomosing with 12. Hind wing with vein 2 from long before angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

454. *Lamprosia eborella*.

Lithosia eborella, Boisd. Delegorgue, Voy. Afr. Austr. ii. p. 597 (1847); Kirby, Cat. Het. p. 318.

Lithosia pygmea, Wlk. ii. 507 (1854).



Fig. 134.—*Lamprosia eborella*, ♂. 1.

♂. Head fulvous red; antennæ black; thorax grey, darker on vertex; shoulders with fulvous stripes; pectus and legs orange, fore and mid tibiæ and tarsi black; abdomen yellow, fulvous at extremity. Fore wing grey-

white, rather darker towards base of inner area; costa narrowly fulvous. Hind wing yellow.

Hab. CAPE COLONY, Fort Pitt (*Dr. Smith*), 1 ♂, type *pygmea*, Annshaw (*Miss F. Barrett*). *Exp.* 30–36 millim.

Genus **PASTEOSIA**, nov.

Type, *P. irrorata*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather narrow, the costa arched; vein 2 from middle of cell; 3 from near angle; 4, 5 shortly stalked; 6 from

upper angle; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3, 4 shortly stalked; 5 absent; 6, 7 shortly stalked; 8 from middle of cell.

SECT. I. Fore wing with veins 7, 8, 9 stalked; 10 free.

455. *Pasteosia irrorata*, n. sp.



Fig. 135.—*Pasteosia irrorata*, ♂. 1.

Grey-brown; abdomen grey. Fore wing thickly irrorated with fuscous; a black point on middle of costa and another at middle of submedian fold; a discoidal point. Hind wing very pale yellow-brown.

Hab. CAPE COLONY, Annshaw (Miss F. Barrett), 1 ♂, 1 ♀ type. *Exp.* 26 millim.

SECT. II. Fore wing with vein 9 from 10 anastomosing with 8 to form the areole; 7 from beyond 9.

456. *Pasteosia plumbea*, n. sp.

♀. Head, front of tegulæ, and shoulders orange-fulvous; antennæ

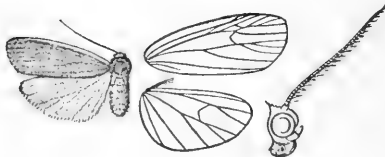


Fig. 136.—*Pasteosia plumbea*, ♀. 1.

blackish; thorax leaden grey; legs orange, fore and mid tibiæ and tarsi leaden grey on outer side; abdomen orange, dorsally grey towards base. Fore wing bright leaden grey, with narrow fulvous costal fascia terminating before apex. Hind wing orange-

yellow. Underside of fore wing with the costal and terminal areas orange.

Hab. CAPE COLONY, Transkei (Miss F. Barrett), 1 ♀ type, Bedford. *Exp.* 32 millim.

Genus **LYSCEIA**.

Lysceia, Wlk. ii. 541 (1854)..... Type. *bigutta*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell; 3 from angle; 4, 5 stalked; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole, 7 from or from beyond the areole; 11 anastomosing with 12. Hind wing with vein 2 from well before angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

457. *Lysceia bigutta*.

Lysceia bigutta, Wlk. ii. 541 (1854); Kirby, Cat. Het. p. 339.



Fig. 137.—*Lysceia bigutta*, ♂. 1.

♂. Head orange; palpi at sides and antennæ fuscous; thorax grey-brown; abdomen grey, the terminal segments yellow. Fore wing grey-brown; the costa blackish towards base; a black discoidal point and another below it in submedian fold. Hind wing pale yellow.

Hab. NATAL, Karkloof (*Marshall*), 1 ♂; CAPE COLONY, Fort Pitt (*Dr. Smith*), 1 ♂ type. *Exp.* 24–26 millim.

Genus **ÆDALEOSIA**, nov.

Type, *Æ. nigricosta*.

Proboscis aborted, minute; palpi minute, not reaching beyond the frons, which has a large rounded prominence with a corneous plate below it; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing long and narrow; vein 2 from middle of cell, curved at base; 3 from close to angle, 5 from above angle; 6 from just below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, oblique. Hind wing with vein 2 from middle of cell; 3, 4 shortly stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

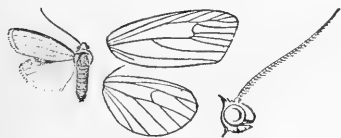
458. *Ædaleosia nigricosta*, n. sp.

Fig. 138.—*Ædaleosia nigricosta*, ♂. 1.

♂. Head yellowish white, slightly tinged with black; antennæ black; the back of head and tegulæ orange; thorax yellowish white; patagia black in front; pectus, legs, and abdomen orange. Fore wing yellowish white, with narrow black costal fascia; cilia yellow. Hind wing white, the costal area fuscous.

Hab. SIERRA LEONE (*Clements*), 1 ♂ type; GAMBIA (*Moloney*). *Exp.* 22 millim.

Genus **CONILEPIA**, nov.

Type, *C. nigricosta*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male ciliated; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell, curved at base; 3 from well before angle, curved at base; 5 absent; 6 from below upper angle; 9 from 10 anastomosing with 8 to form the areole, 7 from the areole; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 absent; 6, 7 coincident; 8 from before middle of cell.

*459. *Conilepia nigricosta*.

Conistis nigricosta, Leech, P. Z. S. 1888, p. 598, pl. 30. f. 11; Kirby, Cat. Het. p. 335.

♂. Head black, with patches of metallic blue; vertex of head, thorax, and abdomen orange-yellow; tibiæ, tarsi, and

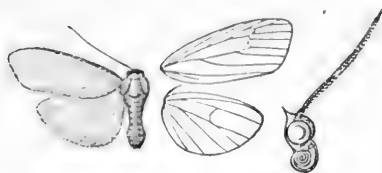


Fig. 139.—*Conilepia nigricosta*, ♂. 1.

parts of femora and fore coxæ metallic blue. Fore wing clothed with powdery white scales; the costa metallic blue; the base, inner margin, and terminal area orange-yellow. Hind wing pale orange-yellow,

with short brown fascia in terminal half of cell.

Hab. JAPAN, type † ♂ in Coll. Leech. *Exp.* 40 millim.

Genus **LITHOSIA**.

Type.

Lithosia, Fabr. Ent. Syst. Suppl. p. 459 (1798)..... *quadra*. †
Setina, Schrank, Fauna Boica, ii. (2) p. 165 (1802) *quadra*.

Proboscis fully developed; palpi upturned, reaching middle of frons and clothed with rough hair; frons rounded; antennæ with cilia and bristles; tibiæ with the spurs rather short; abdomen clothed with rough hair. Fore wing long and narrow, the termen short; 2 from before middle of cell; 3, 4 from angle or shortly stalked; 5 from above angle; 6 from well below upper angle; 9 given off from 10 and anastomosing with 8 to form the areole, 7 from end of areole; 11 oblique. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked in female, coincident in male; 8 from middle of cell.

- A. Fore wing of male with the costa black with yellow fascia below it *subcosteola*.
 B. Fore wing of male with the costa greyish..... *quadra*.

*460. *Lithosia subcosteola*. (Plate XXIV. fig. 15.)

Lithosia subcosteola, Druce, A. M. N. H. (7) iv. p. 200 (1899).

♂. Head black, the vertex orange-yellow; thorax and abdomen yellow; fore and mid tibiæ and tarsi black above. Fore wing fuscous black with a purplish tinge; the base and a subcostal fascia yellow, the latter expanding at apex; the costal edge fuscous, tinged with metallic green on basal half; some metallic green in cell just beyond the yellow base. Hind wing yellow.

Hab. C. CHINA, Hunan (*Pratt*), type † ♂ in Coll. Druce. *Exp.* 40 millim.

461. *Lithosia quadra*.

Noctua quadra, Linn. Syst. Nat. i. p. 511 (1758); Esp. Schmett. iv. p. 82, pl. 92. ff. 2-6; Godt. Lép. Fr. v. p. 13, pl. 41. ff. 2-4; Steph.

† The form of the palpi shows that Fabricius' description was taken from *quadra*, not *complanata*.

Ill. Brit. Ent., Haust. ii. p. 97; Hmps. Moths Ind. ii. p. 73; Staud. Cat. p. 55; Kirby, Cat. Het. p. 335.

Noctua flava, Müll. Faun. Fridr. p. 46 (1764).

Noctua deplana, Linn. Mant. Plant. p. 539 (1771).

Ennistis dives, Butl. A. M. N. H. (4) xx. p. 398 (1877); Ill. Het. B. M. ii. p. 7, pl. 22. f. 11; Kirby, Cat. Het. p. 335.

♂. Palpi, frons, and antennæ black; vertex of head and thorax orange; pectus orange; legs deep metallic green except towards base; abdomen orange, greyish towards base, the extremity and

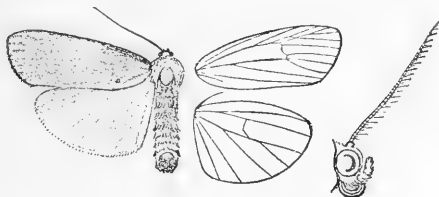


Fig. 140.—*Lithosia quadra*, ♂. 1.

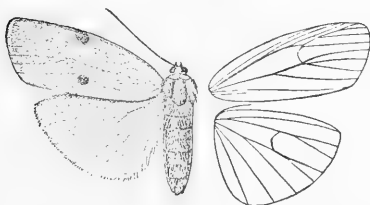


Fig. 141.—*Lithosia quadra*, ♀. 1. (From Moths Ind. vol. ii.)

ventral surface blackish. Fore wing grey, the basal area orange, a blackish streak on base of costal area; terminal area blackish. Hind wing orange-yellow, the costal area fuscous.

♀ orange-yellow, 3rd joint of palpi and antennæ black. Fore wing with deep metallic green spots on costa just beyond middle and on vein 2 at middle.

Hab. BRITAIN; CENTR. & S. EUROPE, Zell. & Frey Colls.; SWEDEN; RUSSIA; ARMENIA; SIBERIA, AMUR; JAPAN, 2 ♂, 2 ♀, type *dives*. *Exp.*, ♂ 36–48, ♀ 42–58 millim.

A ♀ from SIKHIM in Coll. Elwes has vein 5 of fore wing absent, and will probably be found to belong to a new species when the male is discovered.

Larva, Meyr. Brit. Lep. p. 25; Barrett, Lep. Brit. ii. p. 232, pl. 67. f. 3.

Dark reddish-grey, with tufts of long black and grey hairs; dorsal area pale yellow streaked with dark grey; somites 3, 7, 11 with blackish dorsal marks; a subdorsal series of red tubercles; some fine yellowish lines on sides; head black. Food-plant, Lichens; 9–7.

Genus **DOHERTYA**.

Type.

Dohertya, Hmps. Moths Ind. ii. p. 63 (1894)..... *cymatophoroides*.

Proboscis aborted and minute; palpi porrect, reaching to end of frons, which has a rounded prominence; antennæ of male serrate and ciliated; tibiæ with the spurs long. Fore wing rather narrow, the costa strongly arched, the apex rounded; vein 2 from well beyond middle of cell; 3 from well before angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 free, oblique. Hind wing with vein 2 from towards angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from beyond middle of cell.

*462. *Dohertya cymatophoroides*.*Dohertya cymatophoroides*, Hmps. Moths Ind. ii. p. 63 (1894).

♂. Brown; thorax greyish brown, with deep red-brown band behind collar and patch on meta-



Fig. 162.—*Dohertya cymatophoroides*, ♂. 1. (From Moths Ind. vol. ii.)

thorax. Fore wing with the base greyish brown, the medial area suffused with purplish; a curved greyish-brown antemedial obliquely curved line with some dark striæ on its outer edge; a greyish point at middle of cell and discoidal lunule irrorated with dark brown scales; an in-

distinct pale postmedial line oblique from costa to vein 5; the veins towards apex with dark brown streaks; faint traces of a pale subterminal band; a series of dark brown striæ on termen; both wings with a pale line at base of cilia.

Hab. BURMA, E. Pegu, 4000 ft. (*Doherty*), type † ♂ in Coll. Elwes. *Eap.* 36 millim.

Genus **ADREPSA**.

Type.

Adrepsa, Moore, Lep. Atk. p. 37 (1879)..... *stilboides*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons, which is rounded; antennæ of female ciliated; (mid and hind legs wanting). Fore wing with the costa arched at base; the apex produced, the termen oblique; vein 2 from beyond middle of cell; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 free, oblique. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

*463. *Adrepsa stilboides*.

Adrepsa stilboides, Moore, Lep. Atk. p. 38, pl. 2. f. 20 (1879); Hmps. Moths Ind. ii. p. 64; Kirby, Cat. Het. p. 334.

♀. Head and thorax black-brown mixed with white scales; abdomen orange-yellow. Fore wing purplish fuscous; an antemedial series of five small black spots on the veins; a spot in middle of cell and discoidal lunule; a postmedial series of nine small spots, somewhat angled at veins 6 and 4, then strongly incurved, and with some whitish suffusion on its inner side at costa:

a sinuous subterminal series of indistinct white points; a prominent terminal series of black points. Hind wing golden yellow, with some fuscous suffusion on costa.

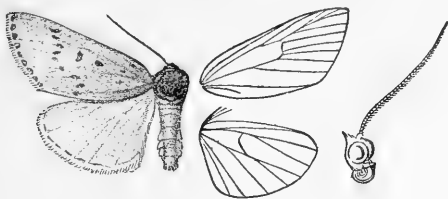


Fig. 143.—*Adrepsa stilboides*, ♀. $\frac{1}{2}$.

Hab. ASSAM, type † ♀ in Coll. Staudinger. *Exp.* 48 millim.

Genus **PROCRIMIMA**, nov.

Type, *P. procris*.

Proboscis fully developed; palpi porrect, extending to just beyond frons; antennæ with bristles and cilia; tibiæ with the spurs moderate. Fore wing narrow and elongate; vein 2 from just beyond middle of cell; 3 from before angle; 4, 5 shortly stalked; 6 from upper angle; 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident in male, stalked in female; 5 absent; 6, 7 shortly stalked; 8 from middle of cell.

464. **Procrimima procris**.

Lithosia procris, Feld. Reis. Nov. pl. 139. f. 12 (1875); Kirby, Cat. Het. p. 326.

♀. Head, thorax, and fore wing metallic blue-green; palpi, antennæ, legs, abdomen, and hind wing fuscous black, the last rather thinly scaled.

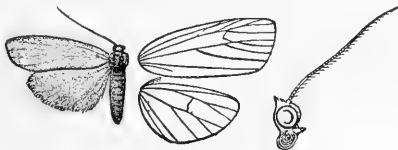


Fig. 144.—*Procrimima procris*, ♀. $\frac{1}{2}$.

♂. Abdomen and hind wing shot with purple-blue; legs and ventral surface of abdomen suffused with metallic green.

Hab. COLOMBIA, Bogotá, type † ♀ in Coll. Rothschild; PERU, Vilcanota (*Garlepp*), 1 ♂. *Exp.*, ♂ 24, ♀ 32 millim.

Genus **ARDONEA**.

	Type.
<i>Ardonea</i> , Wlk. ii. 482 (1854).....	<i>morio</i> .
<i>Doracis</i> , Boisd. Léop. Guat. p. 96 (1870).....	<i>morio</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head, and clothed with rough scales; antennæ of male bipectinate with moderate branches, of female with cilia and bristles, the shaft slightly dilated before middle; tibiæ with the spurs moderate. Fore wing with vein 2 from towards angle of cell and curved at base, 3 from before angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from well beyond middle of cell; 3, 4 from angle; 5 absent; 6, 7 shortly stalked; 8 from middle of cell.

- A. Fore wing green *morio*.
 B. Fore wing black-brown, with whitish streaks in the interspaces. *tenebrosa*.

465. **Ardonea morio**.

Ardonea morio, Wlk. ii. 482 (1854); Druce, Biol. Cent.-Amer., Het. i. p. 130;
 Kirby, Cat. Het. p. 287.
Doracis coracina, Boisd. Léop. Guat. p. 96 (1870).

Head, thorax, abdomen, and fore wing deep blue-green; hind wing deep blue.

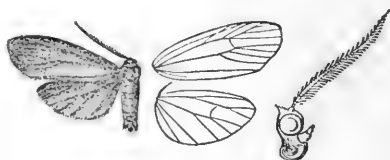


Fig. 145.—*Ardonea morio*, ♂. $\frac{1}{2}$

Hab. MEXICO, Grote Coll., Cordova (*Rümeli*), Coatepec (*Brooks*), Atoyac (*Schuman*), Orizaba (*Elwis, Godman*), Guerrero (*H. H. Smith*), Jalisco (*Schuman*), Misantla (*Trujillo*), Durango (*Forrer*); GUATEMALA (*Champion*); HONDURAS (*Blancaneau*), COSTA RICA (*Underwood, Rogers*); PANAMA (*Champion*), Godman-Salvin Coll.; COLOMBIA Bogotá (*Vergara*); VENEZUELA, type. *Exp.*, ♂ 34, ♀ 40 millim.

466. ? **Ardonea tenebrosa**. (Plate XXIV. fig. 6.)

Carales tenebrosa, Wlk. xxxi. 306 (1864); Kirby, Cat. Het. p. 207.

♀. (Head wanting); black-brown; patagia with grey patches. Fore wing with prominent medial whitish streaks above and below submedian fold and on inner margin; two indistinct brownish streaks in end of cell; whitish streaks intersected by fine streaks of the ground-colour in the interspaces towards termen, reaching the termen except towards apex and above and below vein 4.

Hab. BRAZIL, Rio Janeiro, 1 ♀ type. *Exp.* 34 millim.

Genus **APISTOSIA.**

Apistosia, Hübn. Verz. p. 163 (1827) Type. *judas*.

Proboscis fully developed; palpi obliquely upturned, short; tibiae with the spurs moderate; abdomen with rather prominent lateral tubercles on first segment. Fore wing with vein 2 from middle of cell, oblique, 3 from well before angle; 4, 5 from angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 curved. Hind wing with vein 2 from middle of cell; 3, 4 from angle; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Antennæ of male bipectinate, the branches dilated at extremity.

.467. *Apistosia judas*.

Apistosia judas, Hübn. Zutr. Ex. Schmett. i. p. 13, ff. 51-52 (1827); Kirby, Cat. Het. p. 286.

♂. Head and thorax orange-fulvous; palpi, antennæ, legs, and abdomen brown with a blue shot. Fore wing dull bronze-green with slight cupreous reflections; terminal area bluish. Hind wing brown.

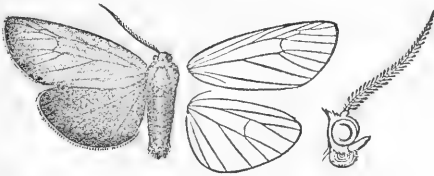


Fig. 146.—*Apistosia judas*, ♂. 1.

♀. Abdomen with paired orange sublateral spots on last segment.

Hab. GUATEMALA, 1 ♂; HONDURAS, 1 ♀; NICARAGUA (*Belt*), 1 ♀; PANAMA (*Champion*), 1 ♀, Godman-Salvin Coll. *Exp.*, ♂ 46, ♀ 56 millim.

SECT. II. Antennæ of male with bristles and cilia.

A. Fore wing of male shorter than hind wing; a fringe of long hair in lower part of cell.

*468. *Apistosia phæoleuca*.

Apistosia phæoleuca, Dognin, Ann. Soc. Ent. Belge, xliii. p. 132 (1899).

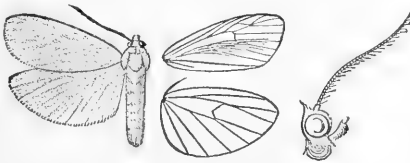


Fig. 147.—*Apistosia phæoleuca*, ♂. 1.

♂. White; head and thorax tinged with fuscous; antennæ

fulvous. Fore wing with diffused fuscous on inner area; two streaks in cell and streaks in the interspaces between veins 2 and 6. Hind wing with slight fuscous tinge on termen at vein 2; the costal half of wing suffused with fuscous on underside.

Hab. ECUADOR, type ♂ in Coll. Dognin. *Exp.* 38 millim.

B. Fore wing of male normal

a. Abdomen with lateral and ventral tufts of hair on terminal segments.

469. *Apistosis pogonoprocta*.

Apistosis pogonoprocta, Dognin, Ann. Soc. Ent. Belge, xliii. p. 132 (1899).

♂. White; head and thorax suffused with fuscous; abdomen with the tufts at extremity yellowish. Fore wing with the costal

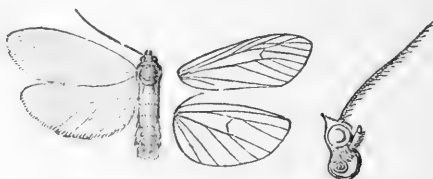


Fig. 148.—*Apistosis pogonoprocta*, ♂. 1.

edge ochreous; the area below the cell and vein 3 suffused with fuscous, deeper towards inner margin. Hind wing with the terminal area suffused with fuscous towards apex.

♀. Fore wing pure white, with the inner area fuscous below the submedian fold. Hind wing pure white.

Hab. ECUADOR, Loja, 1 ♀, type ♂ ♀ in Coll. Dognin. *Exp.* 42 millim.

b. Abdomen without tufts of hair on terminal segments.

a¹. Fore wing silvery white, the costal edge yellow..... *chionora*.

b¹. Fore wing yellow, with postmedial black spots on costa and in submedian fold *subnigra*.

c¹. Fore wing fuscous shot with blue-green *humeralis*.

470. *Apistosis chionora*. (Plate XXIV. fig. 4.)

Lithosia chionora, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 702 (1886); Kirby, Cat. Het. p. 325.

♀. Head pale yellow; palpi at tips and antennæ fuscous; thorax white; the tegulæ and legs yellowish, fore legs tinged with fuscous above; abdomen pale yellow, dorsally tinged with fuscous. Fore wing silvery white, the costal edge narrowly yellow. Hind wing pale yellow.

Hab. QUEENSLAND, Brisbane, 1 ♀; N. S. WALES, Sydney (*Lucas*), type ♂ ♀ in Coll. Meyrick. *Exp.* 38 millim.

*471. *Apistosia subnigra*. (Plate XXIV. fig. 22.)

Æonistis subnigra, Leech, Trans. Ent. Soc. 1899, p. 179.

♂. Pale orange-yellow; palpi except at base, and lower part of frons black; the greater part of fore legs and the extremities of femora and tarsi black; abdomen whitish towards base. Fore wing pale orange-yellow, the costal edge black towards base; a prominent postmedial black spot on costa and a small spot in submedian fold nearer the base; cilia slightly tinged with fuscous towards apex. Hind wing paler, the inner area whitish. Under-side of fore wing with fuscous-black streak below basal half of costa, the cell and inner area suffused with black except the terminal area.

Hab. W. CHINA, Wa-shan, type † ♂ in Coll. Leech. *Exp.* 36 millim.

472. *Apistosia humeralis*. (Plate XXIV. fig. 23.)

Apistosia humeralis, Grote, Proc. Ent. Soc. Philad. vi. p. 302 (1867); Kirby, Cat. Het. p. 286.

♂. Head and thorax orange-fulvous; antennæ black; patagia metallic blue; legs metallic blue, the fore and mid coxæ and femora orange-fulvous; abdomen shot with metallic blue-green, the anal tuft and claspers orange-fulvous; wings fuscous shot with metallic blue-green.

♀. Abdomen with the extremity dark, a subterminal orange band.

Hab. CUBA, 1 ♂. *Exp.* 38–46 millim. Type in Mus. Philadelphia.

Genus **PALÆOSIA**, nov.

Type, *P. bicosta*.

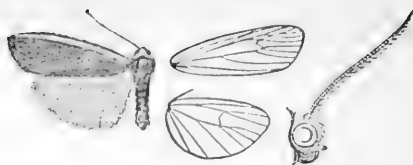
Proboscis fully developed; palpi porrect, reaching just beyond frons which is clothed with rough hair; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell, curved at base; 3 from before angle; 4, 5 from angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 7 from end of areole; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

473. *Palæosia bicosta*.

Lithosia bicosta, Wlk. ii. 506 (1854); Meyr. Proc. Linn. Soc. N. S. W. (2) i. p. 702; Kirby, Cat. Het. p. 325.

Lithosia fraterna, Butl. Trans. Ent. Soc. 1877, p. 349.

Palpi fiery orange, black at tips; frons and antennæ blackish, vertex of head fiery orange; thorax and abdomen greyish fuscous. Fore wing greyish fuscous, with fiery orange stripe on costa fining to a point before apex, and with a white stripe below it reaching apex. Hind wing yellow.

Fig. 149.—*Palaeosia bicosta*, ♂. 1.

Hab. N. S. WALES, Sydney, 1 ♂, 1 ♀ type, (*Raynor*) 1 ♀ ; TASMANIA, Hobart (*Mathew*), 3 ♂, 1 ♀ type *fraterna*. *Exp.* 36 millim.

Genus **PARAONA.**

Type.

Paraona, Moore, P. Z. S. 1878, p. 8 *splendens*.

Proboscis fully developed; palpi porrect, not reaching beyond frons which has a tuft of scales; antennæ of male serrate, with bristles and fasciculate cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing moderately broad; vein 2 from middle of cell, oblique; 3 from before angle; 4, 5 from angle; 6 from upper angle; 9 from 10 anastomosing with 7, 8 to form the areole; 11 free. Hind wing with vein 2 from middle of cell; 3 from angle; 4, 5 shortly stalked; 6, 7 shortly stalked; 8 from before middle of cell.

- A. Head and thorax scarlet..... *cocciniceps*.
- B. Head and thorax dark.
 - a. Fore wing without green streaks on the veins or yellow fascia *staudingeri*.
 - b. Fore wing with green streaks on the veins and yellow fascia *splendens*.

*474. *Paraona cocciniceps*. (Plate XXIV. fig. 10.)

Lithosia cocciniceps, Mab. C.R. Ent. Soc. Belge, xxviii. p. clxxxix (1884); Kirby, Cat. Het. p. 316.

♂. Head and thorax scarlet; antennæ, tibiæ, and tarsi black; abdomen purple-black. Fore wing black suffused with blue, the base scarlet. Hind wing purple-black, the base scarlet.

Hab. MADAGASCAR, type † ♂ in Coll. Mabille. *Exp.* 34 millim.

*475. *Paraona staudingeri*.

Paraona staudingeri, Alph. Rom. Mém. ix. p. 168, pl. xii. f. 8 (1897).

Dull greyish brown with a slight bluish gloss; tegulæ, palpi except at tips, pectus, femora, and ventral surface of abdomen varying from golden-yellow to orange-red; anal tuft tinged with ochreous at base. Hind wing paler and without blue gloss.

Hab. COREA; CHINA, Omei Shan, 1 ♂ in Coll. Leech. *Exp.* 50 millim.

476. *Paraona splendens*.

Crambomorpha splendens, Butl. Trans. Ent. Soc. 1877, p. 357; Moore, P. Z. S. 1878, p. 8, pl. i. f. 1; Hmps. Moths Ind. ii. p. 71; Kirby, Cat. Het. p. 335.

Head, thorax, and abdomen deep metallic green; tegulae golden yellow; palpi below, pectus and ventral bands to abdomen orange-yellow; legs green, yellow towards base; wings dark cupreous

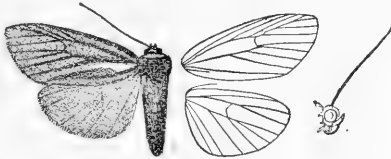


Fig. 150.—*Paraona splendens*, ♀. ♂. (From Moths-Ind. vol. ii.)

fuscous. Fore wing with the veins streaked with deep metallic green, becoming broad stripes towards base; an orange-yellow fascia in basal half of submedian fold.

Hab. BOMBAY (*Swinhoe*), 2 ♂, type, Belgaum (*Watson*), 2 ♂, 2 ♀. *Exp.* 44–52 millim.

Genus *GLAUCOSIA*, nov.

Type, *G. agyllia*.

Proboscis fully developed; palpi porrect, not reaching as far as frons; antennae of male with bristles and cilia; tibiae with the spurs short; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from just beyond middle of cell; 3 from well before angle; 4, 5 separate; 6 from below upper angle; 7, 8 and 9, 10 stalked; 11 free. Hind wing with vein 2 from middle of cell; 3 from before angle; 4, 5 stalked; 6, 7 on a long stalk; 8 from middle of cell; the inner margin with fringe of long hair towards tornus.

477. *Glaucosia agyllia*, n. sp.

♂. Head and thorax brown suffused with grey; pectus and legs whitish; abdomen black-brown. Fore wing grey-white, the inner area suffused with brown. Hind wing fuscous; the cilia whitish.



Fig. 151.—*Glaucosia agyllia*, ♂. ♂.

Hab. BRAZIL, Espiritu Santo, 1 ♂ type. *Exp.* 24 millim.

Genus **EURYPTIDIA**, nov.Type, *E. univitta*.

Proboscis fully developed; palpi upturned, not reaching vertex of head, the 1st joint fringed with long hair; tibiæ with the spurs moderate. Fore wing broad; vein 2 from beyond middle of cell, oblique; 3 from well before angle; 4, 5 from angle or separate; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, oblique. Hind wing with vein 2 from beyond middle of cell; 3 from well before angle; 4, 5 shortly stalked from angle or separate; 6, 7 stalked; 8 from before middle of cell.

SECT. I. Antennæ of male with very short branches and fasciculate cilia.

478. *Euryptidia univitta*, n. sp.

Black. Fore wing orange; the costa, vein 1, and inner margin with black fasciæ; a terminal black band expanding very widely on



Fig. 152.—*Euryptidia univitta*, ♂. †.

apical half, its inner edge oblique or rounded from vein 4 to costa. Underside of fore wing with black discoidal lunule.

Ab. 1. Fore wing with black discoidal spot on upperside.

Hab. BRAZIL, Rio Janeiro, 1 ♂ type, Castro Parana, Rio Grande do Sul; ARGENTINA, Goya (*Perrins*), 1 ♀. *Exp.* 46 millim.

SECT. II. Antennæ of male ciliated.

- | | |
|--|-------------------|
| A. Fore wing with orange streaks on basal area and oblique postmedial band | <i>trifera.</i> |
| B. Fore wing with large triangular orange patch | <i>basivitta.</i> |
| C. Fore wing with the basal half orange | <i>ira.</i> |

479. *Euryptidia trifera*.

Lama trifera, Wlk. Char. Lep. Het. p. 8 (1869), ♀; Kirby, Cat. Het. p. 408.

Lama striata, Butl. Ill. Het. i. p. 55, pl. 19. f. 7 (1877), ♂; Kirby, Cat. Het. p. 408.

♂. Black. Fore wing with orange streak from base below costa, two in cell, and two in submedian interspace increasing in length towards inner margin; an oblique postmedial band from below costa to above tornus. Underside of hind wing with oblique orange fascia from submedian fold before middle to lower angle of cell.

Ab. 1. Hind wing with the fascia also on upperside and on underside extending to inner margin, into the cell and below its lower angle.

♀. Hind wing with broad orange fascia from base of inner margin to beyond lower angle of cell and extending into the cell.



Fig. 153.—*Euryptidia trifera*, ♂. 1.

Hab. AMAZONS, Espiritu Santo, 2 ♂, type *striata*, 1 ♀ type. *Exp.*, ♂ 38, ♀ 46 millim.

480. *Euryptidia basivitta*. (Plate XXV. fig. 13.)

Josia basivitta, Wlk. ii. 298 (1854); Kirby, Cat. Het. p. 408.

Black. Fore wing with large triangular patch extending below costa from base to beyond middle, thence with somewhat sinuous outer edge to above tornus, its lower edge curved in submedian fold, towards tornus extending below vein 1.

Hab. BRAZIL, Rio Janeiro, 2 ♂, Petropolis. *Exp.* 44 millim.

481. *Euryptidia ira*.

Ptychoglene ira, Druce, A. M. N. H. (6) iv. p. 90 (1889); id. Biol. Centr.-Am., Het. ii. p. 398, pl. 78. f. 6; Kirby, Cat. Het. p. 313.

♀. Black with a slight bluish tinge; neck with a slight orange ring; shoulders with an orange spot. Fore wing with the basal half orange, leaving a black patch at base of costa; the outer edge of the orange area slightly angled at lower angle of cell. Hind wing with an orange fascia on basal half of costa, extending at base to inner margin.

Hab. MEXICO, Jalisco (*Schumann*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 26 millim.

Genus **ANTONA**.

Antona, Wlk. ii. 479 (1854) Type. *subluna*.

Proboscis fully developed; palpi oblique to well beyond frons and clothed with rough scales; tibiae with the spurs short; abdomen dorsally clothed with rough hair. Fore wing with vein 2 from towards angle of cell, curved at base; 3 from well before angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from well before angle; 4, 5 from angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Antennæ of male bipectinate, with short branches ending in a bristle, the shaft slightly dilated before middle; of female serrate and fasciculate.

482. *Antona subluna*.

Antona subluna, Wlk. ii. 480 (1854); Kirby, Cat. Het. p. 286.

♂. Blue-black; shoulders with scarlet spots; patagia slightly

fringed with scarlet. Fore wing with a little scarlet at base. Hind wing with sparsely-scaled streak in and below basal part of cell: a semihyaline white patch in, below, and beyond lower end of cell.



Fig. 154.—*Antona subluna*, ♂. ♀.

♀. Abdomen with scarlet patch on ventral surface of terminal segment.

Ab. 1. Larger; the scarlet patches on patagia and base of fore wing much larger; hind wing with the hyaline streak running to base. *Exp.* 52 millim.

Hab. BRAZIL, Rio Janeiro (*Sir E. Belcher, Sir W. Smith*), 1 ♂, 5 ♀, type. *Exp.*, ♂ 40, ♀ 44 millim.

SECT. II. Antennæ with bristles and cilia; abdomen of male with lateral tufts of long hair on terminal segments; hind wing with the tornus produced to an acute lobe clothed with rough hair and containing a tuft of hair on underside.

483. *Antona diffinis*.

Pelochyta diffinis, Wlk. xxxi. 105 (1864); Kirby, Cat. Het. p. 173.

Head, thorax, and abdomen black-brown, slightly shot with blue; patagia and metathorax with orange-red patches. Fore wing brown, the interspaces streaked with black. Hind wing

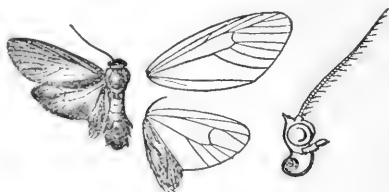


Fig. 155.—*Antona diffinis*, ♂. ♀.

semihyaline, sparsely clothed with blue-black hair, leaving the middle of wing almost hyaline; the veins black.

Hab. TRINIDAD; BR. GUIANA, 1 ♂; BRAZIL, Pará (*Bates*), 1 ♀ type, Espiritu Santo, 1 ♂. *Exp.* 32 millim.

Genus **JOSIODES**, nov.

Type.

Josiodes, Feld. Reis. Nov. p. 5 (1874), non descr. *myrrha*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; claspers of male large. Fore wing rather narrow; vein 2 from beyond middle of cell; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, the latter curved. Hind wing with the cell long; vein 2 from beyond middle; 3 from before angle; 4, 5 from angle; 6, 7 stalked; 8 from before middle of cell.

- A. Fore wing with the orange extending to base.
- a. Fore wing with the inner margin orange; tegulæ orange. *myrrha*.
 - b. Fore wing with the inner margin black; tegulæ black.
 - a¹. Fore wing with the black costal fascia not extending to middle *indecisa*.
 - b¹. Fore wing with the black costal fascia connected with the apical patch.
 - a². Hind wing with orange markings extending to base.
 - a³. Fore wing with subapical orange band.
 - a⁴. Fore wing with the orange extending above subcostal nervure at its extremity.
 - a⁵. Abdomen with narrow lateral orange streaks, the ventral surface black *toxaridia*.
 - b⁵. Abdomen with broad lateral orange fasciæ, the ventral surface orange *repleta*.
 - b⁴. Fore wing with the orange not extending above subcostal nervure.
 - a⁵. Fore wing with the orange extending to vein 1 at its extremity *immutata*.
 - b⁵. Fore wing with the orange not extending below vein 2 at its extremity.
 - a⁶. Hind wing with the orange fascia extending to subcostal nervure *fallax*.
 - b⁶. Hind wing with the orange fascia not extending to subcostal nervure.
 - a⁷. Fore wing with the subapical bar almost transverse *peruviana*.
 - b⁷. Fore wing with the subapical bar almost longitudinal *semicirculata*.
 - b². Fore wing without subapical band *mutans*.
 - a³. Fore wing with the outer edge of orange patch straight oblique *abscissa*.
 - b³. Fore wing with the outer edge of patch curved. *clavata*.

B. Fore wing with the orange not extending to base.

 - a. Hind wing with an orange fascia extending to base..... *variana*.
 - b. Hind wing with elliptical orange spot at end of cell ... *semaculata*.
 - c. Hind wing without orange on upperside.
 - a¹. Fore wing with the orange band not reaching costa.
 - a². Fore wing with the orange band running back to a point in cell towards base *mutata*.
 - b². Fore wing with the inner edge of the orange band nearly straight.
 - a³. Fore wing with orange subapical spot *generans*.
 - b³. Fore wing without orange subapical spot.
 - a⁴. Abdomen with lateral orange fasciæ..... *erythromelas*.
 - b⁴. Abdomen without lateral orange fasciæ *cærulescens*.

- b*¹. Fore wing with the orange band reaching costa.
*a*². Fore wing with oblique subapical orange bar *batesi*.
*b*². Fore wing without subapical orange bar *celena*.

484. *Josiodes myrrha*.

Noctua fulvia, Clerck, Icones, pl. 55. f. 5 (1764), ♀, nec Linn.; Kirby, Cat. Het. p. 294.

Geometra myrrha, Cram. Pap. Exot. i. pl. 29. G (1775).

♂. Bright orange; palpi, frons, antennæ, and legs bluish black; abdomen with dorsal black fascia expanding towards extremity and patch on anal tuft below. Fore wing with black costal fascia; the apical area black, narrowing to a point at tornus, with an orange



Fig. 156.—*Josiodes myrrha*, ♂. †.

triangular subapical patch on it leaving a narrow curved black band on its inner side. Hind wing with terminal black band with sinuous inner edge excurved at median nervules.

Hab. SURINAM, Onoribo (*Ellacombe*), 2 ♂. *Exp.* 34 millim.

485. *Josiodes indecisa*. (Plate XXIV. fig. 13.)

Josiodes indecisa, Butl. Trans. Ent. Soc. 1877, p. 332; Kirby, Cat. Het. p. 294.

♀. Head, thorax, and abdomen black; frons shot with blue; tegulæ with orange patches; abdomen with lateral orange fasciæ except on last two segments. Fore wing orange, with black fascia below basal third terminating in a point below costa; a few black scales in submedian fold ending in a prominent streak above middle of vein 1; a black fascia on inner margin to beyond middle; the apical area black from costa beyond middle to near tornus, where it is retracted to inner margin, and with a curved orange band on it between veins 3 and 4. Hind wing orange, with diffused black fascia in cell; some black scales on the veins near and beyond end of cell; a broad black fascia below the cell leaving the inner margin orange; a broad terminal black band expanding widely on apical area.

Ab. 1. Fore wing with more distinct fascia below the cell and no streak above middle of vein 1; the fascia on inner margin much narrower.

Hab. AMAZONS, Pará (*Bates*), 1 ♀ type, Serpa (*Trail*), 1 ♀. *Exp.* 40 millim.

*486. *Josiodes toxaridia*. (Plate XXIV. fig. 12.)

Josiodes toxaridia, Druce, A. M. N. H. (7) iii. p. 293 (1899).

♂. Head, thorax, and abdomen black; patagia orange; abdomen with orange lateral tufts at base and narrow lateral stripes. Fore wing with large orange patch from base, leaving a narrow black fascia on costa and a very narrow fascia on inner margin, its outer edge rounded and extending nearly to the large obliquely-placed subapical orange lunulate patch. Hind wing orange; the costa black; a terminal black band expanding on apical area and irregularly towards tornus.

Hab. ECUADOR, Intaj (*Buckley*), type † ♂ in Coll. Druce. *Exp.* 36 millim.

487. *Josiodes repleta*.

Hypocrita abscissa, Hübn. Samml. Ex. Schmett. i. ff. 3, 4 (1827), ♀
(nec ♂).

Josia repleta, Wlk. ii. 300 (1854); Kirby, Cat. Het. p. 294.

♂. Head and thorax blue-black; abdomen black, the lateral and ventral surfaces orange except on last two segments. Fore wing orange, with black fasciæ on costa and inner margin; the apical area black, narrowing to a point at tornus and with slight subapical spot on it. Hind wing orange, with black costal fascia; a terminal black band with irregularly dentate inner edge expanding towards costa and below vein 2 and not reaching tornus.

♀. Fore wing with oblique subapical orange band between veins 8 and 4; hind wing with the inner edge of terminal band somewhat more regular.

Ab. 1. Hind wing with more or less prominent black fasciæ in and below cell confluent at base; patagia sometimes with small orange patches; abdomen with the ventral surface sometimes black or with black bands.

Hab. AMAZONS, Para (*Bates*), 2 ♀, type, (*Austen*) 2 ♀, Serpa (*Trail*), 1 ♂. *Exp.*, ♂ 36, ♀ 44 millim.

488. *Josiodes immutata*. (Plate XXIV. fig. 16.)

Josia immutata, Wlk. ii. 300 (1854); Kirby, Cat. Het. p. 294.

♂. Head, thorax, and abdomen blue-black; patagia with orange patches; abdomen with lateral orange fasciæ not reaching extremity. Fore wing orange, with rather broad black fasciæ on costal and inner margin, the latter not quite reaching base; the apical area black, narrowing to tornus, with an obliquely curved subapical orange band from vein 8 to below 4. Hind wing orange, with black costal fascia not reaching base, and terminal black band expanding widely on apical area and forming a large triangular patch below vein 3 with its apex at middle of vein 1, and leaving the inner area orange.

Hab. BRAZIL, 3 ♂, type. *Exp.* 40 millim.

489. *Josiodes fallax*. (Plate XXIV. fig. 17.)

Josiodes fallax, Butl. Trans. Ent. Soc. 1877, p. 331; Kirby, Cat. Het. p. 294.

♂. Head, thorax, and abdomen blue-black; patagia with orange patches; abdomen with narrow lateral orange fasciæ not reaching extremity. Fore wing black, with broad orange fascia from base to well beyond middle, extending just into the cell and from base of inner margin to vein 2 at its extremity; a curved subapical band from vein 8 to below vein 4. Hind wing black, with broad orange fasciæ from base in and below cell to near termen, narrowing somewhat beyond the cell and conjoined at base to the orange inner area.

♀. Abdomen with the lateral fasciæ broader.

Hab. BRAZIL, 1 ♂, 1 ♀ type. *Exp.*, ♂ 36, ♀ 42 millim.

*490. *Josiodes peruviana*.

Brycea peruviana, Schaus, P. Z. S. 1892, p. 283; id. Am. Lep. p. 14, pl. ii. f. 16.

♀. Black; head, thorax, and abdomen slightly shot with blue; patagia orange; abdomen with lateral orange stripes except on terminal segments. Fore wing with orange fascia from base extending to discocellulars, then obliquely to vein 2 near termen, its lower edge at base extending to vein 1, then not below submedian fold; an obliquely curved subapical band from below costa to vein 4. Hind wing with narrow sinuous fascia from base below median nervure, extending into lower end of cell, then expanding and ending before termen; a narrow fascia on inner margin.

Hab. PERU, 3 ♀, type † in Coll. Schaus. *Exp.* 40 millim.

491. *Josiodes semicirculata*, n. sp. (Plate XXV. fig. 1.)

♂. Dull black; frons with an orange bar; neck, outer part of tegulæ, and patagia orange; sides and ventral surface of abdomen orange. Fore wing with orange fascia in lower part of cell and below it, depressed towards extremity and ending well before termen; an apical bar somewhat curved and almost longitudinal. Hind wing with orange fascia from base in lower part of cell and below it to near termen.

♀. Fore wing with subterminal orange band from below vein 4 to above tornus.

Hab. ECUADOR, Loja; BOLIVIA, Bueyes (*Garlepp*), 1 ♂ type. *Exp.* 30 millim.

492. *Josiodes mutans*. (Plate XXV. fig. 2.)

Josiodes mutans, Wlk. ii. 296 (1854); Kirby, Cat. Het. p. 294.

♂. Black slightly shot with blue; abdomen with the lateral and ventral surfaces orange except on last two segments. Fore wing with clavate orange patch from base below the cell, its lower edge curved to submedian fold well beyond middle, its upper extremity to upper angle of cell. Hind wing with broad orange fascia in and

below cell to just beyond its lower angle and conjoined at base to a fascia on inner area.

Ab. 1. Tegulae and mesothorax with orange patches.

Hab. AMAZONS, Para (Bates), 1 ♂ type, Lake Agudao (Trail), 1 ♂. Exp. 36 millim.

493. *Josiodes abscissa*.

Hypocrita abscissa, Hübn. Samml. Ex. Schmett. i. ff. 1, 2 (1827), ♂ (nec ♀); Kirby, Cat. Het. p. 294.

Josia fixa, Wlk. ii. 295 (1854); Kirby, Cat. Het. p. 294.

Josiodes inconstans, Butl. Trans. Ent. Soc. 1877, p. 332; Kirby, Cat. Het. p. 294.

♂. Head, thorax, and abdomen black shot with blue; abdomen with lateral orange fascia and traces of subdorsal fascia towards base; wings black shot with blue. Fore wing with large triangular orange patch from base below the cell, extending along vein 1 to near tornus and with a black streak above middle of vein 1, its upper angle below costa just beyond middle; a subapical spot between veins 8 and 4. Hind wing with slight orange streak at lower angle of cell, becoming on underside a large spot extending to middle of cell; a slight orange streak on inner margin.

♀. Abdomen with broad lateral orange fasciae except on two terminal segments; fore wing with some black scales in basal half of submedian fold; hind wing without the orange streaks on upper-side at lower angle of cell or on inner margin.

Hab. AMAZONS, Pará (Bates), 2 ♂, type *fixa*, 1 ♀, type *inconstans*, (Austen) 1 ♂. Exp. 34 millim.

494. *Josiodes clavata*. (Plate XXV. fig. 3.)

Josiodes clavata, Wlk. ii. 297 (1854); Kirby, Cat. Het. p. 294.

♂. Black; head and thorax shot with blue (abdomen wanting). Fore wing with clavate orange patch from base below the cell, its lower edge curved to vein 1 towards tornus, its upper extremity to upper angle of cell; traces of an orange subapical band between veins 8 and 4. Hind wing with slight orange streak at lower angle of cell on underside.

Hab. AMAZONS, Pará (Bates), 1 ♂ type. Exp. 34 millim.

495. *Josiodes variana*. (Plate XXV. fig. 25.)

Josiodes variana, Butl. Trans. Ent. Soc. 1877, p. 331; Kirby, Cat. Het. p. 294.

♀. Black; head and thorax slightly shot with blue; abdomen with broad lateral orange fasciae except on last two segments. Fore wing with large triangular orange patch from vein 1 before middle to near tornus, its upper extremity below the costa above angle of cell; a curved subapical band between veins 8 and 4. Hind wing black, with broad orange fascia from base through the cell to beyond its extremity; the inner margin orange.

Ab. 1. Ventral surface of abdomen orange except at extremity; hind wing with some black suffusion in cell.

Hab. AMAZONS, Pará (Bates), 2 ♀, type. *Exp.* 38 millim.

496. *Josiodes sexmaculata*.

Josiodes sexmaculata, Butl. Ill. Het. i. p. 54, pl. 19. f. 4 (1877); Kirby, Cat. Het. p. 294.

♀. Head, thorax, and abdomen black, the head and thorax shot with blue; abdomen with broad lateral orange fasciæ except on last two segments. Fore wing black, with large somewhat triangular orange patch from below costa to near tornus, its apex on median nervure and its base straight and oblique; a curved subapical band between veins 8 and 4. Hind wing black, with elliptical orange patch in and beyond lower angle of cell, much larger on underside and extending to subcostal nervure at middle of cell.

Hab. AMAZONS, Pará (Bates), 2 ♀, type. *Exp.* 40 millim.

497. *Josiodes mutata*. (Plate XXV. fig. 7.)

Josia mutata, Wlk. ii. 296 (1854); Kirby, Cat. Het. p. 294.

♂. Black; head and thorax shot with blue; abdomen with lateral orange fascia except on terminal segment, expanding subdorsally towards base. Fore wing with broad oblique transverse orange band from below costa to near tornus, its inner edge running back to a point on median nervure near base; a slight oblique wedge-shaped orange subapical spot. Hind wing with semicircular orange spot on underside at lower angle of cell.

Hab. AMAZONS, Pará (Bates), 1 ♂ type. *Exp.* 38 millim.

498. *Josiodes generans*. (Plate XXV. fig. 8.)

Josia generans, Wlk. ii. 296 (1854); Kirby, Cat. Het. p. 295.

Josiodes obscura, Butl. Trans. Ent. Soc. 1877, p. 332; Kirby, Cat. Het. p. 295.

♂. Black; head and thorax slightly shot with blue; abdomen with lateral orange fasciæ except on terminal segment. Fore wing with broad oblique orange postmedial band from below costa to above vein 1; a small oblique subapical mark between veins 8 and 5.

Ab. 1. *obscura*. Fore wing with the postmedial band narrower and not reaching subcostal nervure.

Hab. AMAZONS, Pará (Bates), 3 ♂, type and type *obscura*. *Exp.* 32 millim.

499. *Josiodes erythromelas*. (Plate XXV. fig. 29.)

Josia erythromelas, Wlk. ii. 297 (1854); Kirby, Cat. Het. p. 295.

♂. Black shot with purplish; abdomen with lateral orange fasciæ except on terminal segment. Fore wing with oblique somewhat triangular orange postmedial patch from below subcostal nervure to submedian fold above tornus; faint traces of an orange

subapical spot, slightly more distinct on underside. Hind wing with small orange spot on underside at lower angle of cell.

Hab. AMAZONS, Pará (*Bates*), 1 ♂ type. *Exp.* 36 millim.

500. *Josiodes cærulescens*, n. sp. (Plate XXV. fig. 30.)

Black, strongly suffused with blue. Fore wing with broad oblique pale yellow band with rather irregular edges from just below costa to just above tornus, where it contracts and is bent inwards.

Hab. COLOMBIA, Rio San Juan, 1 ♂ type, ♀ in Coll. Staudinger. *Exp.*, ♂ 38, ♀ 46 millim.

501. *Josiodes batesi*.

Josiodes batesi, Feld. Reis. Nov. pl. 106. f. 28 (1874); Kirby, Cat. Het. p. 295.

Josiodes entella, Druce, A. M. N. H. (7) iii. p. 293 (1899).

♀. Black, slightly shot with blue; abdomen with lateral orange fasciæ except on terminal segments. Fore wing with broad orange band from costa just beyond middle to inner margin just before tornus, towards which it is slightly incurved; an oblique subapical bar not reaching costa or termen. Underside of hind wing with rounded orange patch in and beyond lower angle of cell.

Hab. BR. GUIANA (*Whitely*), type † ♀ *entella* in Coll. Druce; BRAZIL, Mañaos, 1 ♀. *Exp.* 40 millim.

502. *Josiodes celena*.

Josia celena, Wlk. ii. 297 (1854), ♂; Kirby, Cat. Het. p. 295.

Seedrosa trajectory, Wlk. xxxi. 138 (1864), ♀; Kirby, Cat. Het. p. 295.

Josiodes purpurata, Butl. Ill. Het. i. p. 55, pl. 19. f. 5 (1877); Kirby, Cat. Het. p. 295.

♂. Black, slightly shot with purple; abdomen with lateral orange fasciæ except on terminal segment. Fore wing with broad oblique orange band from costa just beyond middle to just above inner margin near tornus, its inner margin slightly angled below costa.

♀. Abdomen with the orange fasciæ not extending to last three segments; fore wing with the orange band not angled below costa and reaching inner margin, towards which it is slightly bent inwards.

Ab. 1. *purpurata*. Hind wing with small orange spot on underside at lower angle of cell.

Hab. SURINAM; AMAZONS, Mañaos (*Austen*), 1 ♂, Ega (*Bates*), 1 ♀ type *trajectory*, Rio Negro (*Wallace*), 1 ♂ type, Rio Solimoës (*Trail*), 1 ♀ type *purpurata*; BOLIVIA, Corvico; PERU, Chancamayo. *Exp.*, ♂ 30-34, ♀ 40 millim.

Genus **PTYCHOGLENE.**

Type.

Ptychoglène, Feld. Reis. Nov. p. 8 (1894), non descr. *erythrophora*.

Proboscis fully developed; palpi porrect, extending well beyond frons and thickly scaled; antennæ short and rather thick, with bristles and cilia; tibiae with the spurs short. Fore wing moderately broad; vein 2 from middle of

cell, curved towards base; 3 from well before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from well before angle of cell; 3, 4 shortly stalked; 5 absent; 6, 7 from upper angle or shortly stalked; 8 from middle of cell.

A. Tegulæ scarlet.

- a. Fore wing with the edge of scarlet area erect from vein 6 to inner margin..... *pertunda*.
 b. Fore wing with the edge of scarlet area oblique from costa to inner margin near base *xylophila*.

B. Tegulæ black.

- a. Hind wing with reddish-orange fascia below the cell *sanguineola*.
 b. Hind wing without fascia below the cell.
 a¹. Fore wing with the crimson patch extending almost to inner margin.
 a². Forewing with the crimson patch extending to costa. *phrada*.
 b². Fore wing with the costa black *æqualis*.
 b¹. Fore wing with the crimson patch not extending below vein 1 *erythrophora*.

503. *Ptychoglene pertunda*.

Ptychoglene pertunda, Druce, A. M. N. II. (6) iv. p. 90 (1889); id. Biol. Centr.-Am., Het. ii. p. 398, pl. 78. f. 3; Kirby, Cat. Het. p. 313.

♀. Deep black; tegulæ scarlet. Fore wing scarlet leaving the terminal area black, the scarlet area extending on costa to near apex, its outer edge then retracted to vein 6 and erect to inner margin. Hind wing with narrow scarlet fascia on basal half of costa.

Hab. MEXICO, Coatepec (*Brooks*), 2 ♀, type, Godman-Salvin Coll., Guadalajara. *Exp.* 30 millim.

504. *Ptychoglene xylophila*.

Ptychoglene xylophila, Druce, Biol. Centr.-Am., Het. i. p. 129, pl. 13. f. 1 (1885); Kirby, Cat. Het. p. 313.

Deep black; patagia scarlet. Fore wing scarlet from costa just before apex to base of inner margin, the tornal half of wing black, the edge of the two areas irregularly dentate. Hind wing with scarlet fascia on basal half of costa.

Hab. MEXICO, Ventana (*Forrer*), 1 ♂ type; GUATEMALA (*Champion*), 2 ♂, 2 ♀; NICARAGUA (*Janson*), 1 ♂, Godman-Salvin Coll. *Exp.* 24-28 millim.

505. *Ptychoglene sanguineola*. (Plate XXV. fig. 9.)

Lithosia sanguineola, Boisd. Lép. Guat. p. 95 (1870); Druce, Biol. Centr.-Am., Het. i. p. 129; Kirby, Cat. Het. p. 313.

Deep black. Fore wing with elliptical crimson patch from close to base to well beyond middle, extending from just below costa to just above inner margin. Hind wing with pale yellowish-crimson patch from base to well beyond middle extending down to median nervure, often confluent towards base, with shorter fasciæ in submedian interspace and inner area.

Hab. MEXICO, 1 ♂ Grote Coll., Orizaba (*Botteri, Godman*), 2 ♂; 2 ♀, Jalapa (*Hoege, Trujillo*), 1 ♂, 2 ♀, Misantlá, 1 ♀, Amecameca (*Godman*), 1 ♂, Coatepec (*Brooks*), 1 ♀; GUATEMALA (*Champion*), 1 ♂, 1 ♀, Godman-Salvin Coll. *Exp.* 30 millim.

506. *Ptychoglene æqualis*. (Plate XXV. fig. 10.)

Lithosia æqualis, Wlk. ii. 511 (1854); Kirby, Cat. Het. p. 313.

♀. Deep black. Fore wing with large elliptical crimson patch from near base to well beyond middle, extending from just below costa to just above inner margin and leaving a broad terminal black band. Hind wing with crimson costal fascia from base to beyond middle extending to discal fold, and on underside diffused to median nervure from base to beyond middle of cell.

Hab. GUATEMALA (*Sallé*), 1 ♀ type. *Exp.* 30 millim.

507. *Ptychoglene phrada*.

Ptychoglene phrada, Druce, A. M. N. H. (6) iv. p. 90 (1889), ♀; id. Biol. Centr.-Am., Het. ii. p. 398, pl. 78. f. 1; Kirby, Cat. Het. p. 313.

Ptychoglene flammans, Dyar, J. N. Y. Ent. Soc. vi. p. 39 (1898), ♂.

♀. Deep black. Fore wing crimson with a little black at base, a narrow fascia on inner margin, and a terminal band with irregular inner edge, narrowing to apex. Hind wing with crimson patch from base to well beyond middle, extending down to median nervure; a slight crimson streak in submedian interspace.

♂. Fore wing with the black border slightly broader; hind wing with the crimson not extending on median nervure to lower angle of cell.

Hab. ARIZONA, type † *flammans* in U.S. Nat. Mus.; MEXICO, Vera Cruz (*Schumann*), 2 ♀, type, Godman-Salvin Coll. *Exp.* 30 millim.

508. *Ptychoglene erythrophora*.

Ptychoglene erythrophora, Feld. Reis Nov. pl. 106. f. 26 (1874); Druce, Biol. Centr.-Am., Het. i. p. 129; Kirby, Cat. Het. p. 313.

Deep black. Fore wing with elliptical crimson patch from near base to well beyond middle, extending from just below costa to vein 1. Hind wing with crimson fascia on basal half of costa.



Fig. 157.—*Ptychoglene erythrophora*, ♂. 1.

Hab. MEXICO, Oajaca (*Sallé*), 1 ♂, 2 ♀, Ciudad (*Forrer*), 1 ♂, 1 ♀, Godman-Salvin Coll. *Exp.* 28–30 millim.

Genus **TUINA**.

	Type.
<i>Ituna</i> , Wlk. ii. 480 (1854), nec Dbl. Lep. 1847	<i>cingulata</i> .
<i>Tuina</i> , Butl. Trans. Ent. Soc. 1877, p. 326	<i>cingulata</i> .

Proboscis fully developed; palpi porrect, thickly scaled, and reaching well beyond the frons which is somewhat prominent; antennæ of female roughly scaled above and with bristles and cilia; tibiæ with the spurs moderate. Fore wing with the costa arched, the apex rectangular; vein 2 from middle of cell, curved at base; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, 11 curved. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 absent; 6, 7 from upper angle; 8 from before middle of cell.

509. *Tuina cingulata*.

Ituna cingulata, Wlk. ii. 481 (1854); Druce, Biol. Centr.-Am., Het. i. p. 122, pl. 12. f. 11; Kirby, Cat. Het. p. 287.

♀. Deep black; base of palpi, gulæ, shoulders, and patagia flesh-coloured; base of wings flesh-coloured.

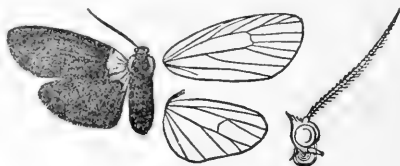


Fig. 158.—*Tuina cingulata*, ♀. 1.

Hab. MEXICO, Jalapa; HONDURAS, 1 ♀ type; GUATEMALA (*Champion*), 1 ♀, Godman-Salvin Coll. *Exp.* 38 millim.

Genus **METERYTHROSIA**, nov.

Type, *M. sangala*.

Proboscis fully developed; palpi porrect, reaching well beyond frons; antennæ of female clothed with rough scales and with bristles and cilia; tibiæ with the spurs moderate. Fore wing with the costa arched, the apex rectangular; vein 2 from middle of cell, curved at base; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, 11 curved. Hind wing with vein 2 from middle of cell; 3, 4 from angle; 5 absent; 6, 7 from upper angle; 8 from before middle of cell; an elliptical swelling in end of cell.

510. *Meterythrosia sangala*.

Tuina sangala, Druce, Biol. Centr.-Am., Het. i. p. 122, pl. 12. f. 12 (1885); Kirby, Cat. Het. p. 287.

♀. Black, shoulders and tegulæ orange; abdomen with lateral orange patches on first four segments. Fore wing with very short orange streak below the cell from base. Hind wing crimson, with broad terminal black band.

Fig. 159.—*Meterythrosia sangala*, ♀. $\frac{1}{4}$.

Hab. GUATEMALA, Vera Paz (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 34 millim.

Genus CISTHENE.

Type.

<i>Eudesmia</i> , Hübn. Samml. Ex. Schmiett. ii. (1827), non descr.; Wlk. ii. 564 (1854)	<i>ruficollis</i> .
* <i>Cisthene</i> , Wlk. ii. 533 (1854)	<i>trisigna</i> .
<i>Ruscino</i> , Wlk. ii. 563 (1854)	<i>menca</i> .
<i>Gerba</i> , Wlk. xxxi. 270 (1864)	<i>quadrifasciata</i> .

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ short, of male with bristles and cilia, of female with the shaft thickened with rough scales; tibiæ with the spurs moderate. Fore wing rather broad; vein 2 from beyond middle of cell, oblique; 3 from well before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, the latter curved. Hind wing with vein 2 from beyond middle of cell; 3 from well before angle; 5 from above angle; 6, 7 stalked; 8 from middle of cell.

A. Fore wing with medial orange band.

a. Fore wing with subterminal orange band.

a¹. Abdomen orange above.a². Hind wing with the basal half orange.a³. Fore wing with orange fascia in base of cell ... *lunaris*.b³. Fore wing without orange fascia in base of cell.a⁴. Hind wing with fuscous patch on base of costal area.a⁵. Fore wing with the 1st orange band occupying medial half of wing..... *prusias*.b⁵. Fore wing with the 1st orange band at most one-fourth of wing *menca*.b⁴. Hind wing with the subbasal black patch extending almost to inner margin *cynossema*.b². Hind wing black, with orange subbasal patch on costa *quadrifasciata*,b¹. Abdomen black above.a². Fore wing with medial orange band.a³. Fore wing with the bands orange and broad ... *praxis*.b³. Fore wing with the bands orange-yellow and narrow..... *cypris*.b². Fore wing without medial band *unicincta*b. Fore wing with two subterminal orange spots..... *ruficollis*.B. Fore wing with orange fascia from base to beyond upper angle of cell..... *cyanara*.C. Fore wing with short orange fascia from base below the cell and spot at lower angle *trisigna*.

* An examination of Walker's types shows that his description was taken from *trisigna* and not *subjecta*.

511. *Cisthene lunaris*. (Plate XXV. fig. 11.)

Cisthene lunaris, Wlk. xxxi. 241 (1864); Kirby, Cat. Het. p. 294.

Head, thorax, and abdomen orange-yellow; antennæ black; tibiæ and tarsi tinged with fuscous. Fore wing pale yellowish fuscous; the inner margin orange-yellow; an orange-yellow fascia in cell from base to the curved medial band; an almost or quite terminal band incurved to costa; cilia fuscous. Hind wing orange-yellow with terminal fuscous band, its inner edge somewhat angled at middle, sometimes indistinct and suffused with orange.

Hab. COLOMBIA, Bogotá (*Nolcken*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 24, ♀ 28 millim.

512. *Cisthene prusias*.

Ruscino prusias, Druce, A. M. N. H. (6) xiii. p. 176 (1894); id. Biol. Centr.-Am., Het. ii. p. 397, pl. 78. f. 2.

♀. Head, thorax, and abdomen orange; palpi black at tips; antennæ and legs black. Fore wing black, with very broad orange band occupying the median half of wing: a curved subterminal band from just below costa to vein 1, attenuate at extremities. Hind wing orange, with fuscous spot on base of costa; the terminal third black.

Hab. MEXICO, Jalisco (*Schumann*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim.

This may be an extreme form of *menea*.

513. *Cisthene menea*.

Arctia menea, Drury, Ill. Exot. Ent. iii. pl. iii. f. 2 (1782); Druce, Biol. Centr.-Am., Het. i. p. 127; Kirby, Cat. Het. p. 294.

Ruscino lætifera, Wlk. xxxi. 264 (1864); Druce, Biol. Centr.-Am., Het. i. p. 127; Kirby, Cat. Het. p. 294.

Ruscino latifasciatus, Butl. A. M. N. H. (4) xv. p. 341 (1875); Druce, Biol. Centr.-Am., Het. i. p. 127, pl. 12. f. 24; Kirby, Cat. Het. p. 293.

Ruscino arctifascia, Butl. Trans. Ent. Soc. 1877, p. 330; Druce, Biol. Centr.-Am., Het. i. p. 127; Kirby, Cat. Het. p. 293.

Head, thorax, and abdomen orange; palpi, antennæ, and legs



Fig. 160.—*Cisthene menea*, ♂. 1.

black; abdomen with the ventral surface entirely black except at base, with black patch beyond middle, or entirely orange. Fore wing black to grey-black; an almost medial orange band typically broad, sometimes with its outer edge expanding below middle, sometimes contracting at middle and sometimes narrow except towards inner margin; a subterminal band expanding towards costa, where it arises well before apex, bent out to near termen between vein 4

and inner margin. Hind wing with the basal half orange, with small black patch at base of costa; the terminal half or third black.

Hab. MEXICO, Orizaba (*Sallé*), 1 ♂, type *letifera*, Tabasco (*H. H. Smith*), Yucatan (*Gaumer*); GUATEMALA (*Champion*); NICARAGUA (*Richardson, Belt*), Godman-Salvin Coll.; HONDURAS, type *arctifascia*; COLOMBIA, Veragua, type *latifasciatus*; BRAZIL (*Kaden*). *Exp.*, ♂ 28-34, ♀ 40-52 millim.

514. *Cisthene cynossema*.

Ruscino cynossema, Druce, A. M. N. H. (6) xiii. p. 176 (1894); id. Biol. Centr.-Am., Het. ii. p. 397, pl. 77. f. 23 (1897).

Head, thorax, and abdomen orange; palpi, antennæ, legs, and ventral surface of abdomen except at base and extremity black. Fore wing bluish black; a broad orange band just before middle with curved inner edge; a band from costa beyond middle, towards which it expands, to termen, on which it extends from vein 4 to tornus and somewhat attenuate at middle. Hind wing with the basal half orange, with subbasal black patch from costa almost to inner margin; the terminal half black.

Hab. MEXICO, Guerrero (*H. H. Smith*), 1 ♂, 3 ♀, type; GUATEMALA (*Rodriguez*), 1 ♀, Godman-Salvin Coll. *Exp.*, ♂ 34, ♀ 38 millim.

515. *Cisthene quadrifasciata*. (Plate XXV. fig. 23.)

Gerba quadrifasciata, Wlk. xxi. 270 (1864); Kirby, Cat. Het. p. 293.

♂. Head, thorax, and abdomen orange; antennæ, legs, and ventral surface of abdomen blackish. Fore wing black-brown, with broad orange-yellow band just before middle with slightly sinuous edges; a broad curved subterminal band from just below costa to just below vein 2. Hind wing black-brown, with orange patch from middle of costa to median nervure.

Hab. MEXICO, Oajaca (*Sallé*), 1 ♂ type. *Exp.* 30 millim.

516. *Cisthene praxis*.

Ruscino praxis, Druce, A. M. N. H. (6) xiii. p. 176 (1894); id. Biol. Centr.-Am., Het. ii. p. 397, pl. 78. f. 4.

Palpi, frons, and antennæ black; vertex of head and thorax orange; legs and abdomen black. Fore wing grey-black; a narrow orange-yellow band just before middle, slightly angled on median nervure; a narrow curved subterminal band from below costa to vein 2. Hind wing with the basal half orange-yellow, with fuscous patch at base of costa; the terminal half black.

Hab. MEXICO, Durango (*Becker*), 1 ♂, 1 ♀ type, Godman-Salvin Coll. *Exp.* 28-34 millim.

This may be a variety of *cypris*.

517. *Cisthene cypris*.

Ruscino cypris, Druce, A. M. N. H. (6) xiii. p. 176 (1894); id. Biol. Centr.-Am., Het. ii. p. 397, pl. 78. f. 5.

Palpi, frons, and antennæ black; vertex of head and thorax orange; pectus and legs black; abdomen black, tinged with orange towards base, and the anal tuft orange. Fore wing grey-black; a broad slightly oblique antemedial orange band; a curved subterminal band from below costa to vein 2. Hind wing with the basal half orange, with fuscous patch at base of costa; the terminal half black.

Hab. MEXICO, Jalisco (*Schumann, Richardson*), 2 ♂, 1 ♀ type; GUATEMALA, Vera Paz (*Champion*), 1 ♂, Godman-Salvin Coll. *Exp.* 30-38 millim.

518. *Cisthene uncinata*, n. sp. (Plate XXV. fig. 24.)

♂. Black-brown; vertex of head, tegulæ, and metathorax orange fulvous. Fore wing with curved narrow subterminal orange band not quite reaching costa or inner margin. Underside of fore wing with traces of orange band; of hind wing with slight orange suffusion in cell and on basal part of inner area.

Hab. COLOMBIA, Bogotá, 1 ♂ type. *Exp.* 36 millim.

519. *Cisthene ruficollis*.

Eudescmia ruficollis, Hübn. Samml. Ex. Schmett. ii. (1824); Kirby, Cat. Het. p. 292.

♂. Blue-black; tegulæ and shoulders orange; abdomen with the 2nd to 6th segments orange, with dorsal maculate black fascia. Fore wing with broad orange medial band, its inner edge slightly sinuous, its outer edge excurved; a somewhat triangular subterminal orange patch below apex and a smaller spot between veins 2 and 3. Hind wing dull black, with broad medial orange band with somewhat sinuous edges.

♀ with the markings orange-yellow.

Hab. BRAZIL, Theresopolis, 1 ♂, 2 ♀. *Exp.* 38-50 millim.

520. *Cisthene cynara*.

Brycea cynara, Druce, A. M. N. H. (6) xiii. p. 175 (1894); id. Biol. Centr.-Am., Het. ii. p. 395, pl. 77. f. 16.

♂. Black with a slight purplish tinge; tegulæ and patagia orange. Fore wing with broad orange-yellow fascia from base in and below cell to beyond upper angle, where it is rounded, its lower edge somewhat angled at middle of vein 1; a curved subterminal band from below costa to submedian fold, attenuate at extremities. Hind wing with broad orange-yellow fascia from base to middle of costa; vein 5 from rather near angle of cell.

Hab. MEXICO, Durango (*Becker*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 36 millim.

521. *Cisthene trisigna*. (Plate XXV. fig. 12.)

Cisthene trisigna, Wlk. ii. 534 (1854); Kirby, Cat. Het. p. 291.

Head, tegulæ, and patagia orange; antennæ and patches on vertex of head and patagia fuscous; thorax and the greater part of legs fuscous; abdomen orange, with dorsal fuscous fascia. Fore wing brownish fuscous, with short orange-yellow fascia from base below the cell and somewhat triangular spot at lower angle of cell; a subterminal band not reaching costa or inner margin, bent inwards and expanding below apex. Hind wing orange-yellow, with black fascia on costa and a broad terminal band indented between veins 5 and 2 by a sinus of the ground-colour.

Hab. VENEZUELA, 1 ♂, 1 ♀ type. *Exp.* 24 millim.

Genus **AGLOSSOSIA**, nov.

Type, *A. flavimarginata*.

Proboscis aborted, minute; palpi porrect, slight, not reaching as far as frons, which has a large rounded prominence; antennæ of male minutely serrate, with bristles and cilia; fore tibiæ with long claw on inner side and short claw on outer; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather narrow, the costa arched towards apex; vein 2 from middle of cell, oblique; 3 from before angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked, 7 from 8 beyond 9; 10, 11 free, 11 curved. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 from angle; 6, 7 stalked; 8 from middle of cell.

522. *Aglossosia flavimarginata*, n. sp.

♂. Head, tegulæ, and patagia orange; frons and antennæ blackish; thorax greyish; legs orange, streaked with black; abdomen grey, with segmental lines and the extremity orange. Fore

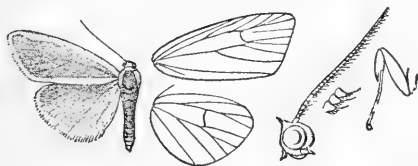


Fig. 161.—*Aglossosia flavimarginata*, ♂. ♀.

wing grey, with the margins rather broadly and cilia orange; costa black towards base. Hind wing orange, with the costal area fuscous and more or less fuscous suffusion on disk.

Hab. NATAL, Mooi R., 1 ♂ type, Newcastle, 1 ♂. *Exp.* 34 millim.

Genus **CARIPODIA**, nov.

Type, *C. chrysargyria*.

Proboscis aborted, minute; palpi porrect, roughly scaled, not extending as far as frons, which has a large rounded thickly scaled prominence; antennæ of male minutely serrate, with long bristles and cilia; fore femora dilated; the tibiae short, with long curved claw on inner side and short claw on outer; hind femora short, fringed with thick hair; abdomen clothed with rough hair. Fore wing long and rather narrow, the costa arched towards apex, the termen oblique; the cell long; vein 2 from near middle of cell, oblique; 3 from just before angle; 5 from above angle; 9 from 10 anastomosing with 8 to form the areole, 6 from areole; 11 free, curved. Hind wing with vein 2 from middle of cell; 3, 4 on a long stalk; 5 from angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Hind tibiæ with one pair of spurs; fore wing with vein 7 from 8 beyond 9.

523. *Caripodia chrysargyria*, n. sp.

Head, tegulæ, and patagia orange; antennæ and thorax whitish grey; tarsi black; abdomen orange. Fore wing silvery grey-white; narrow orange fasciæ on costa and inner margin; the costal edge black towards base; cilia orange. Hind wing orange,



Fig. 162.—*Caripodia chrysargyria*, ♂. †.

tinged with fuscous towards costa. Underside of fore wing and the costal area of hind wing, except the margins, black.

Hab. C. AFRICA, Tanganyika, Nyasa (*Simons*), 1 ♂; MASHONALAND, Salisbury (*Marshall*), 3 ♂, 1 ♀, type. *Exp.* 24–36 millim.

A specimen from the SOUDAN, Djur, in Coll. Staudinger, has veins 3, 4 of hind wing coincident; and another specimen, from GERMAN E. AFRICA, Dar-es-Salaam, has veins 7, 8, 9 stalked: they otherwise appear to be identical with the typical form.

SECT. II. Hind tibiæ with two pairs of spurs; fore wing with vein 7 from 8 beyond 9.

524. *Caripodia metaleuca*, n. sp. (Plate XXV. fig. 14.)

♂. Head and thorax orange-yellow; abdomen whitish, the extremity and ventral surface orange-yellow. Fore wing silvery white, the costal edge and a fine terminal line orange. Hind wing white, with fine terminal orange line.

Hab. SIERRA LEONE (*Clements*), 1 ♂ type. *Exp.* 26 millim.

Genus **DIPLONYX**, nov.

Type, *D. infumata*.

Proboscis aborted, minute; palpi porrect to just beyond frons, which is roughly scaled; antennæ of male minutely serrate and fasciculate; fore tibiæ short, with long curved claw on inner side at extremity and shorter claw on outer side; hind tibiæ with the medial spurs absent; abdomen clothed with rough hair. Fore wing rather narrow, the costa slightly arched; vein 2 from middle of cell, oblique; 3 from before angle, 5 from above angle; 9 from 10 anastomosing with 8 to form the areole, 6 from the areole, 7 from before or beyond 9; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from near angle; 4, 5 from angle; 6, 7 shortly stalked; 8 from middle of cell.

525. *Diplonyx infumata*, n. sp.

♂. Head black; palpi and sides of frons yellowish grey; thorax black and grey; tegulæ and patagia with yellowish edges; legs black and yellowish grey; abdomen yellowish, banded with black. Fore wing grey tinged with fuscous; the costa black towards base; black spots at base and middle of cell, and two obliquely placed on discocellulars; the margins and cilia orange.



Fig. 163.—*Diplonyx infumata*, ♂. 1.

Hind wing orange, the costal half suffused with deep fuscous and sometimes much of the inner area also; a discoidal black lunule. Underside of fore wing, except marginal areas, and costal area of hind wing fuscous.

Hab. CAPE COLONY, Annshaw (*Miss F. Barrett*), 2 ♂, type. *Exp.* 34 millim.

Genus **CARCINOPODIA**, nov.

Type, *C. furcifasciata*.

Proboscis present; palpi porrect, not reaching beyond the frons, which has a large rounded prominence; antennæ of female ciliated; fore tibiæ with large curved claw on inner side at extremity and small claw on outer; mid and hind tibiæ with the spurs short; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell, curved at base; 3 from before angle; 4, 5 from angle; 9 from 10 anastomosing with 8 to form the areole, 6 from the areole, 7 from beyond 9; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 from angle; 5 absent; 6, 7 stalked; 8 from before middle of cell.

- | | |
|---------------------------------------|------------------------|
| A. Fore wing silvery white | <i>argentata</i> . |
| B. Fore wing pale golden yellow | <i>furcifasciata</i> . |

*526. *Carcinopodia argentata*. (Plate XXV. fig. 18.)*Gnophria argentata*, Dist. A. M. N. H. (6) xx. p. 199 (1897).

♀. Head orange, with some fuscous scales above the frontal prominence; antennæ fuscous and white; tegulæ whitish in front, fuscous fringed with orange behind; thorax whitish, the patagia fringed with orange; pectus orange; legs whitish, orange, and black; abdomen orange, banded with black. Fore wing silvery whitish; the costa streaked with black, the inner margin with orange: a black line from costa beyond middle oblique to discocellulars, then still more oblique and sinuous to submedian fold, then bent outwards to inner margin; a slightly waved line oblique from costa before apex to submedian fold, then bent outwards to inner margin, a line arising from it at vein 5 and curving round to join it again at costa; cilia orange, fuscous at base. Hind wing orange, the costal half fuscous black and with some fuscous suffusion below the cell, leaving the termen orange. Underside of fore wing black, with the marginal areas orange.

Hab. TRANSVAAL, Pretoria (*Distant*), type † ♀ in Coll. *Distant*. *Exp.* 42 millim.

527. *Carcinopodia furcifasciata*.*Gnophria furcifasciata*, Butl. P. Z. S. 1895, p. 268.

♀ (Head wanting); thorax and abdomen golden yellow, the latter with black segmental bands; tarsi ringed with black. Fore wing pale golden yellow; the costa black; a medial black line excurved below costa, strongly incurved below cell; a postmedial

Fig. 164.—*Carcinopodia furcifasciata*, ♀. †.

incurved sinuous line forming a large fork from vein 5 to the costa; cilia black. Hind wing orange-yellow. Underside of fore wing suffused with black except costal and terminal areas; a blackish band from costa before apex to vein 5.

Hab. BR. CENTRAL AFRICA, Fwambo (*Carson*), 1 ♀ type. *Exp.* 52 millim.

Genus **ONYCHIPODIA**, nov.Type, *O. nigricostata*.

Proboscis aborted, small; palpi porrect, not reaching as far as frons, which has a large rounded projection; antennæ of male with bristles and cilia; fore tibiae with large curved claw on inner side at extremity and short claw on

outer side; hind tibiae with the medial spurs absent; abdomen clothed with rough hair. Fore wing narrow; vein 2 from middle of cell; 3 from before angle; 5 from above angle; 9 from 10 anastomosing with 8 to form the areole; 6 from areole, 7 from end of it; 11 free. Hind wing with vein 2 from middle of cell; 3 from angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

528. *Onychipodia nigricostata*.

Ghoria nigricostata, Butl. P. Z. S. 1894, p. 583, pl. 37. f. 5.

♂. Head and thorax yellowish white mixed with brown; frons and legs brown; abdomen orange, with black bands. Fore wing yellowish white suffused with pale brown; a narrow dark brown



Fig. 165.—*Onychipodia nigricostata*, ♂. 1.

costal fascia; a yellow fascia on inner area. Hind wing orange-yellow. Underside of fore wing fuscous, the costal and terminal areas yellow.

Hab. BR. E. AFRICA (*Gregory*), 1 ♂ type. *Exp.* 40 millim.

Genus **GNAMPTONYCHIA**, nov.

Type, *G. flavicollis*.

Proboscis fully developed; palpi porrect, not reaching beyond frons, which is clothed with rough hair; antennae of male serrate and fasciculate; fore tibiae very short, with a long curved claw on inner side and short claw on outer side; mid and hind tibiae with the spurs moderate; abdomen dorsally clothed with rough hair towards base. Fore wing long and narrow; vein 2 from middle of cell; 3 from close to angle; 4, 5 from angle; 9 from 10 anastomosing with 7, 8 to form the areole, 6 from the areole; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

529. *Gnamptonychia flavicollis*.

Atolmis flavicollis, Druce, Biol. Centr.-Am., Het. i. p. 132, pl. 13. f. 6 (1885); Kirby, Cat. Het. p. 315.

Apistosia tiria, Druce, Biol. Centr.-Am., Het. ii. p. 394 (part).



Fig. 166.—*Gnamptonychia flavicollis*, ♂. 1.

♂. Dull black; head and tegulae orange-yellow; palpi and

antennæ black; femora streaked with orange; terminal segment of abdomen orange.

Hab. MEXICO, Milpas (*Forrer*), 2 ♂, type, Jalisco (*Richardson*), 1 ♀, Godman-Salvin Coll. *Exp.*, ♂ 46, ♀ 34 millim.

Genus **INOPSIS.**

Type.

Inopsis, Feld. Reis. Nov. p. 5 (1874), non descr. *catoxantha*.

Proboscis fully developed; palpi porrect, clothed with rough hair, and hardly reaching as far as frons, which is somewhat prominent; antennæ of male bipectinate, with moderate branches, of female serrate and fasciculate; fore tibiæ shortened, with long curved claw at extremity on inner side, a shorter claw on outer side; mid and hind tibiæ with the spurs long; abdomen with some rough hair at base of dorsum, the claspers of male very elongate. Fore wing with vein 2 from beyond middle of cell; 3 from well before angle; 5 from above angle in male, from angle or shortly stalked with 4 in female; 9 from 10 anastomosing with 7, 8 to form the areole, 6 from the areole; 11 free, curved. Hind wing with vein 2 from beyond middle of cell; 3 from angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

A. Anal segment of abdomen orange *catoxantha*.

B. Anal segment of abdomen black..... *modulata*.

530. *Inopsis catoxantha*.

Inopsis catoxantha, Feld. Reis. Nov. pl. 106. f. 6 (1874); Kirby, Cat. Het. p. 286.

Ctenucha imitata, H. Edwards, Ent. Am. iii. p. 91 (1887); Kirby, Cat. Het. p. 178.

Atolmis flavicollis, Druce, Biol. Centr.-Am., Het. i. p. 132 (part).

Apistosis tiria, Druce, Biol. Centr.-Am., Het. ii. p. 394 (1897).

Black, suffused with metallic green; palpi except 3rd joint, frons, tegulæ, coxæ, streaks on femora, ventral surface of abdomen, anal tuft, and claspers orange.

Ab. 1. *tiria*. Fore wing only with greenish suffusion.

Ab. 2. *imitata*. Without greenish suffusion.

Ab. 3. Vertex of head orange.

Hab. MEXICO, 1 ♂, Grote Coll., Guerrero (*H. H. Smith*), 2 ♀, type *tiria*, Milpas (*Forrer*), Godman-Salvin Coll. *Exp.* 36-40 millim. Type ♂ ♀ in Coll. Rothschild.

531. *Inopsis modulata*.

Ctenucha modulata, H. Edw. Pap. iv. p. 14 (1884); Kirby, Cat. Het. p. 178.

Apistosis metella, Druce, Biol. Centr.-Am., Het. i. p. 121, pl. 12. f. 6, ♀ (1885); Kirby, Cat. Het. p. 286.

Apistosis scylla, Druce, Biol. Centr.-Am., Het. i. p. 122, pl. 12. f. 8, ♂ (1885); Kirby, Cat. Het. p. 286.

♂. Black shot with dull blue; palpi except 3rd joint, frons, tegulæ, coxæ, and ventral surface of abdomen except last segment orange.

♀. Fore wing shot with bronze-green; the vertex of head usually orange.

Ab. 1. *metella*. Hind wing with small hyaline patch below end of cell.

Ab. 2. Femora orange.



Fig. 167.—*Inopsis modulata*, ♂. 1.

Hab. MEXICO, Jalapa, 1 ♂, Grote Coll., Tepic (*Richardson*), 1 ♀; GUATEMALA (*Rodriguez, Champion*), 1 ♂, 1 ♀, type *metella*; PANAMA, Chiriqui (*Champion, Arcé*), 5 ♂, 1 ♀, type *scylla*, Godman-Salvin Coll. *Exp.* 42 millim.

Genus **CYPTONYCHIA**, nov.

Type, *C. flaviceps*.

Proboscis fully developed; palpi porrect, reaching just beyond the frons, which has a large rounded prominence; antennæ ciliated; fore tibiæ short, with long curved claw on inner side at extremity. Fore wing with vein 2 from beyond middle of cell; 3 from near angle; 5 from above angle; 6 from below upper angle; 9 from 10 anastomosing with 7, 8 to form the areole; 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 from angle; 5 from well above angle; 6, 7 stalked; 8 from before middle of cell.

532. *Cyptonychia flaviceps*.

Cyptonychia flaviceps, Druce, A. M. N. H. (7) iii. p. 467 (1899).

♂. Head and thorax orange-yellow; palpi, pectus, legs, and



Fig. 168.—*Cyptonychia flaviceps*, ♂. 1.

abdomen fuscous; the anal tuft yellowish black; wings yellowish white. Fore wing with the costal edge blackish towards base.

Hab. MEXICO, 1 ♂. *Exp.* 30–34 millim. Type † in Mus. Oxon.

Genus **NYCTOSIA**, nov.

Type, *N. tenebrosa*.

Proboscis aborted, slight; palpi porrect, reaching well beyond frons and fringed with long hair; head, thorax, and base of abdomen clothed with rough hair; antennæ of male serrate and ciliated; tibiæ with the spurs short; hind tibiæ with the medial spurs absent. Fore wing with vein 2 from beyond middle of cell; 3 from close to angle; 4, 5 from angle or shortly stalked;

6 from upper angle; 7, 8, 9, 10 stalked, 10 from beyond 7; 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from angle; 4, 5 shortly stalked; 6, 7 from upper angle; 8 from middle of cell.

- A. Hind wing crimson *coccinea*.
 B. Hind wing blue-black *tenebrosa*.

*533. *Nyctosia coccinea*. (Plate XXV. fig. 6.)

Nyctosia coccinea, Schaus, J. N. Y. Ent. Soc. vii. p. 217 (1899).

♀. Head, thorax, and abdomen black with slight bluish gloss. Fore wing dull brownish black. Hind wing crimson, with black fascia on costal area and the cilia black.

Hab. MEXICO, 1 ♀, type† in Coll. Schaus. *Exp.* 38 millim.

534. *Nyctosia tenebrosa*.

Apistosis tenebrosa, Wlk. xxxv. 1881 (1866); Druce, Biol. Centr.-Am., Het. i. p. 121; Kirby, Cat. Het. p. 286.

Ctenucha proxima, H. Edw. Pap. iv. p. 14 (1884); Kirby, Cat. Het. p. 178.

Head and thorax orange-red; palpi, antennæ, a patch between their bases, tegulæ, patagia, and legs blue-black; abdomen blue-black; the end of anal tuft orange in male. Fore wing black shot with bronze-green. Hind wing black shot with dull blue.

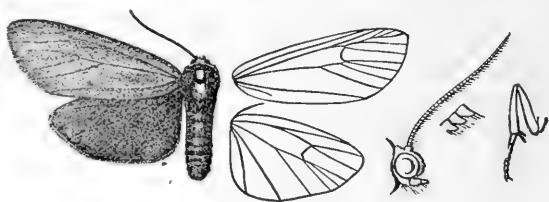


Fig. 169.—*Nyctosia tenebrosa*, ♂. 1.

Hab. MEXICO, 1 ♂, 1 ♀ type, Jalapa (*Hoega, Trujillo*), 2 ♂, 1 ♀, Godman-Salvin Coll.; GUATEMALA. *Exp.* 48–52 millim.

Genus **SYNTOMIMORPHA**, nov.

Type, *S. cærulescens*.

Proboscis fully developed; palpi upturned, smoothly scaled, the 2nd joint reaching nearly to vertex of head, the 3rd well developed; frons smoothly scaled; antennæ of male ciliated; tibiae with the spurs short; abdomen extending well beyond hind wing. Fore wing long and narrow, the costa arched towards apex, termen obliquely rounded; vein 3 from well before angle of cell; 5 from above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole, 7 from areole; 11 free; retinaculum of male formed by a tuft of hair from submedian fold. Hind wing of male with the tornus produced to a lobe, the inner margin folded over below, covering a fringe of long white hair; vein 3 from before angle; 4, 5 from angle; 6, 7 from upper angle; 8 from middle of cell.

535. *Syntomimorpha cærulescens*, n. sp.

♂. Black shot with brilliant blue; neck orange; tegulæ fringed with orange.



Fig. 170.—*Syntomimorpha cærulescens*, ♂. ½.

Hab. CELEBES (*Doherty*), 1 ♂ type. *Exp.* 38 millim.

Genus **PROTOSIA**, nov.

Type, *P. terminalis*.

Proboscis well developed; palpi porrect, reaching well beyond frons and fringed with long hair below; antennæ of male bipectinate, with moderate branches, of female with very short branches; thorax and base of abdomen clothed with rough hair; tibiæ with the spurs short; female with large anal tuft. Fore wing with vein 2 from beyond middle of cell; 3 from near angle; 4, 5 from angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle, 8 from beyond middle of cell.

SECT. I. Hind wing with veins 4, 5 and 6, 7 shortly stalked; abdomen of female clothed with long hair, forming long lateral tufts at extremity.

536. *Protosia enna*.

Apistosis enna, Druce, Biol. Centr.-Am., Het. i. p. 122, pl. 12. f. 9 (1885); Kirby, Cat. Het. p. 286.

♀. Head, thorax, and abdomen black; palpi at base, frons, tegulæ, patagia, and throat orange; abdomen with the lateral tufts whitish at extremity. Fore wing black shot with bronze-green.

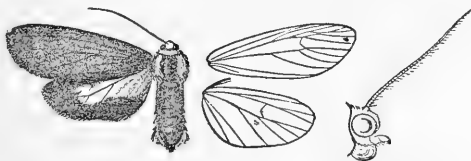


Fig. 171.—*Protosia enna*, ♀. ½.

Hind wing hyaline, the veins black; the costal area and a broad terminal band greenish black, the latter expanding towards apex and below vein 2.

♂. Abdomen with the last two segments orange at sides and below.

Hab. MEXICO, Jalapa (*Hoeye*), 1 ♀ type. *Exp.* 40 millim.

SECT. II. Hind wing with veins 4, 5 and 6, 7 from cell; male with the abdomen not clothed with very long hair.

- A. Fore coxæ crimson *terminalis*.
 B. Fore coxæ black *azteca*.

537. *Protosia terminalis*.

Apistosis terminalis, Wlk. ii. 478 (1854); Druce, Biol. Centr.-Am., Het. i. p. 121, and ii. p. 394; Kirby, Cat. Het. p. 178.

Ctenucha pyrrhousa, Hulst, Bull. Brook. Ent. Soc. iii. p. 77, pl. 4. f. 4 (1881); Kirby, Cat. Het. p. 178.

Ctenucha votiva, H. Edw. Pap. iv. p. 13 (1884).

Scirarctia bolteri, H. Edw. Pap. iv. p. 121 (1884).

Head, thorax, and abdomen black shot with brilliant blue; fore coxæ, tegulæ, shoulders, and anal tuft scarlet, the last white at

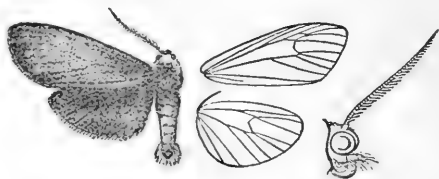


Fig. 172.—*Protosia terminalis*, ♂. $\frac{1}{4}$.

extremity in female. Fore wing black shot with bronze-green; cilia white. Hind wing black shot with blue.

Hab. MEXICO, 1 ♀ type, (*Schumann*) 1 ♂, Cuernavaca (*Morelos*), 1 ♀, Godman-Salvin Coll. *Exp.* 46 millim.

538. *Protosia azteca*.

Ctenucha azteca, Schaus, P. Z. S. 1892, p. 278; Druce, Biol. Centr.-Am., Het. ii. p. 360, pl. 73. f. 2.

♀. Head and thorax black-brown with a bluish gloss; tegulæ and shoulders orange; abdomen blue-black, with the anal tuft orange. Fore wing brown with a greenish gloss; an orange spot at base of costa. Hind wing blue-black.

♂. Tegulæ, shoulders, anal tuft, and spot at base of costa of fore wing crimson; cilia of fore wing white.

Hab. MEXICO, Mexico city, type in Coll. Schaus, Durango city (*Becker*), 1 ♀, Godman-Salvin Coll. *Exp.* 38 millim.

Genus **AGRISIUS**.

Agrisius, Wlk. iii. 723 (1855)..... *guttivitta*. Type.

Proboscis fully developed; palpi upturned, slender, the 3rd joint long and reaching well above vertex of head; antennæ of male fasciculate; tibia with the spurs moderate. Fore wing rather narrow; vein 2 from well beyond middle of cell; 3 from near angle; 5 from above angle; 6 from angle; 9, 10 stalked, anastomosing with 8 which arises from 7 to form the areole; 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 from angle; 5 from above angle; 6, 7 from upper angle; 8 from middle of cell.

- A. Fore wing white, with medial series of spots and prominent black streaks on veins of terminal area *guttivitta*.
 B. Fore wing fuscous, without medial series of spots; the veins of terminal area slightly streaked with fuscous *fuliginosus*.

539. *Agrisius guttivitta*.

Agrisius guttivitta, Wlk. iii. 723 (1855); Butl. Ill. Het. B. M. v. p. 40, pl. 87. f. 2; Hmps. Moths Ind. ii. p. 64; Kirby, Cat. Het. p. 304.

White; palpi streaked with black; frons with black spot; antennæ black except towards base; tegulæ, shoulders, patagia, meso- and metathorax with black spots; legs streaked with black; abdomen with subdorsal and ventral black bands, the extremity black. Fore wing with the costal edge black towards base; a subbasal spot with an oblique series of three spots beyond it;

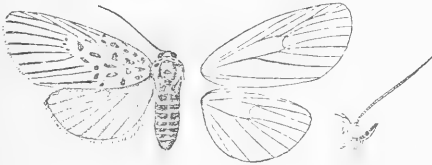


Fig. 173.—*Agrisius guttivitta*, ♂. ♀. (From Moths Ind. vol. ii.)

an antemedial series of spots forking towards costa; spots in and above middle of cell; a medial series bent outwards to costa, then oblique; a discoidal spot; a postmedial series from beyond upper angle of cell, incurved below the cell; the veins beyond the cell strongly streaked with black; cilia tipped with black. Hind wing with the veins of terminal half strongly streaked with black.

Hab. SIKHIM (*Lidderdale, Dudgeon*), 4 ♂, 3 ♀, type. *Exp.* 46 millim.

*540. *Agrisius fuliginosus*.

Agrisius fuliginosus, Moore, P. Z. S. 1872, p. 571, pl. 33. f. 3; Hmps. Moths Ind. ii. p. 65; Kirby, Cat. Het. p. 304; Swinh. Cat. Het. Mus. Oxon. p. 113.

Agrisius japonicus, Leech, P. Z. S. 1888, p. 598, pl. 30. f. 10; Kirby, Cat. Het. p. 304.

♀. White, suffused with pale fuscous; palpi streaked with black; frons with black spot; antennæ black except towards base; tegulæ, shoulders, patagia, meso- and metathorax with black spots; legs streaked with black; abdomen with dorsal and subdorsal black spots and ventral bands. Fore wing with the costa streaked with black towards base; a subbasal black spot, followed by an oblique series of three spots; an antemedial series forking towards costa; a spot at middle of cell; two medial spots below costa; a postmedial series from beyond upper angle of cell, slightly bent inwards below the cell; the veins of terminal area slightly streaked with fuscous. Hind wing uniform fuscous.

Hab. JAPAN, type† *japonicus* in Coll. Leech; CHINA; ? INDIA, type† in Mus. Oxon. *Exp.* 56 millim.

Genus **SYMMETRODES**.

Type.

Symmetrodes, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 703 (1886). *sciocosma*.

Proboscis fully developed; palpi short, porrect; antennæ of female almost simple. Fore wing with vein 2 from middle of cell; 3, 4, 5 from cell; 6 from cell; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with veins 2, 3, 4, 5 from cell, 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

*541. *Symmetrodes sciocosma*. (Plate XXV. fig. 15.)

Symmetrodes nitens, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 703 (1886),
nec Wlk.

Symmetrodes sciocosma, Meyr. P. Linn. Soc. N. S. W. (2) ii. p. 920 (1888);
Kirby, Cat. Het. p. 334.

♀. Head, thorax, and abdomen pale ochreous yellow; fore and mid legs fuscous. Fore wing whitish ochreous, base rather darker ochreous; traces of a curved antemedial line sometimes present, and sometimes of a diffused dentate postmedial line, or the terminal half of wing slightly suffused with grey. Hind wing whitish ochreous, sometimes slightly suffused with grey except towards base.

Hab. QUEENSLAND. *Exp.* 27–28 millim. Figured from drawing in Coll. Meyrick.

Genus **STICTANE**, nov.Type, *S. fractilinea*.

Proboscis well developed; palpi upturned, slender, and reaching vertex of head; antennæ of male serrate and fasciculate; tibiæ with the spurs moderate. Fore wing short and rather broad, the costa arched; vein 2 from middle of cell, curved at base; 3 from long before angle; 5 from well above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

- | | |
|--|-----------------------|
| A. Fore wing with the medial line very oblique | <i>obliquilinea</i> . |
| B. Fore wing with the medial line nearly straight and erect. | <i>rectilinea</i> . |
| C. Fore wing with the medial line excurved from below costa
to submedian fold | <i>fractilinea</i> . |

542. *Stictane obliquilinea*, n. sp. (Plate XXV. fig. 5.)

♀. White; palpi, lower part of frons, and antennæ brownish; tarsi tinged with ochreous. Fore wing with subbasal black point on median nervure and antemedial points on subcostal nervure and vein 1; a nearly straight very oblique medial band expanding from below the cell to inner margin; two discoidal points; diffused fuscous patches on costa before apex and on middle of termen; a terminal dark line. Hind wing pale fuscous.

Hab. CEYLON, Hambantota (*Pole*), 1 ♀ type. *Exp.* 14 millim.

543. *Stictane rectilinea*.

Pitane rectilinea, Snell. Tijds. v. Ent. xxii. p. 91, pl. 10. f. 7 (1879); Kirby, Cat. Het. p. 364.

Grey; palpi and antennæ blackish. Fore wing with the costal edge black towards base; antemedial black spots on subcostal and median nervures and vein 1; an almost straight medial oblique black line with some diffused fuscous beyond it on costa; a black spot at lower angle of cell; a postmedial series of black points excurved from below costa to submedian fold, and with a fuscous patch beyond it on costa; a terminal series of black points. Hind wing pale brownish.

Ab. 1. Fore wing with a broad area of fuscous suffusion on outer edge of medial line.—China.

Hab. CHINA, Chang-hai, 1 ♀; SINGAPORE (*Ridley*), 1 ♂; CELEBES, type † ♀ in Coll. Snellen. *Exp.* 12–18 millim.

544. *Stictane fractilinea*.

Pitane fractilinea, Snell. Veth's Midd.-Sumatra, Lep. p. 38 (1880); Kirby, Cat. Het. p. 364.

Eugoa multipuncta, Hmps. Ill. Het. B. M. ix. p. 81, pl. 158. f. 3 (1893); id. Moths Ind. ii. p. 93.

Palpi and frons fuscous; vertex of head, tegulæ, and patagia whitish; thorax and abdomen fuscous. Fore wing whitish, more

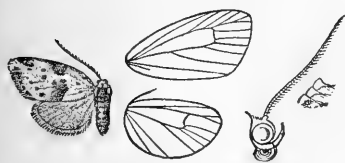


Fig. 174.—*Stictane fractilinea*, ♂. 1.

or less strongly tinged with brown; a curved antemedial series of three black spots on the veins; a medial line with fuscous band on its outer edge, excurved from below costa to submedian fold and interrupted in cell; two discoidal black spots; a curved postmedial series of black points from below costa to above inner margin, with a slight fuscous mark on costa beyond it; a terminal series of black points. Hind wing pale, the terminal half suffused with fuscous.

Hab. SIKHIM, 4000 feet (*Pilcher*), 1 ♀; CEYLON, Dickoya (*Green*), 1 ♂, 1 ♀ type *multipuncta*; SUMATRA; JAVA, 1 ♀. *Exp.* 13–18 millim. Type † in Coll. Snellen.

Genus LOBOBASIS.

Type.

Lobobasis, Hmps. Moths Ind. iv. p. 498 (1896) *niveimaculata*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male ciliated; tibiæ with the inner spurs long, the outer short. Fore wing short and broad, the costa strongly arched at base, then nearly straight; vein 2 from near end of cell; 3, 4 stalked; 5 absent; 6 from below upper angle; 7, 8 stalked; 9 absent; 10, 11 free, the latter curved; male with a rounded patch of rough scales below base of costa, a curved ridge of hair from the costa beyond it to base of inner margin. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked, 7 curved; 8 from middle of cell, curved; male with elliptical patch of androconia on upperside below the costa on vein 8 and subcostal nervure.

545. *Lobobasis niveimaculata*.

Lobobasis niveimaculata, Hmps. Moths Ind. iv. p. 498 (1896).

♂. Head, tegulæ, and front part of thorax and patagia pure white; palpi, frons, and antennæ yellowish; hind part of thorax

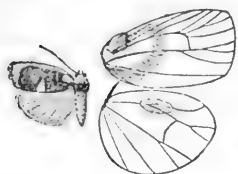


Fig. 175.—*Lobobasis niveimaculata*, ♂. 1.
(From Moths Ind. vol. iv.)

rufous; pectus, legs, and abdomen yellowish. Fore wing rufous; a prominent round white patch below base of costa and a triangular patch on inner margin beyond middle extending up to vein 2; a yellow costal fascia from above the subbasal white patch to apex; the termen

yellow, narrowing from costa to a point above tornus, its inner edge rather irregular. Hind wing yellowish.

♀. Fore wing with triangular yellow patch on middle of costa with its apex on median nervure. Hind wing tinged with fuscous, the termen and cilia yellow.

Hab. SIKHIM (*Pilcher*), 1 ♂; BHUTÁN (*Dudgeon*), 1 ♂ type; PERAK: SUMATRA (*Ericson*), 1 ♀. *Exp.* 20 millim.

Genus **PSEUDOBLABES**.

Pseudoblabe, Zell. Bull. Mosc. xxvi. (2) p. 512 (1853) Type. *oophora*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing short and broad, the costa arched, the apex rounded; vein 2 from middle of cell, straight; 3 from long before angle; 5 absent; 6 from well below upper angle; 7, 8, and 10 stalked, 9 absent; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 stalked; 8 from towards end of cell; male with an elliptical patch of androconia on upperside below costa towards apex, which is strongly excised down to vein 3.

546. *Pseudoblabe oophora*.

Pseudoblabe oophora, Zell. Bull. Mosc. xxvi. (2) p. 514, pl. iv. ff. 1-6 (1853); Hmps. Moths Ind. ii. p. 97; Kirby, Cat. Het. p. 376.
Conchylis flavicostana, Wlk. xxviii. 361 (1863).

♂. Head and thorax pale ochreous yellow; frons and fore tibiæ and tarsi fuscous; abdomen dorsally tinged with fuscous except at



Fig. 176.—*Pseudoblabe oophora*, ♂. 1.
(From Moths Ind. vol. ii.)

base and extremity. Fore wing dark purplish fuscous; the basal, costal, and terminal areas ochreous white, the costal fascia expanding into the cell at middle, the terminal band narrowing from costa to tornus. Hind wing pale ochreous yellow.

♀. Hind wing fuscous, cilia yellow.

Hab. ASSAM; CENTR. INDIA, Belgaum (*Watson*), 2 ♀; CEYLON, Nawalapitya (*Green*), 1 ♂, 1 ♀; BURMA, Moulmein (*Clerk*), 1 ♀, type *flavicostana*, Rangoon, 1 ♂; SINGAPORE (*Ridley*), 1 ♀; JAVA, Batavia, 1 ♂, 1 ♀ type. *Exp.* 18–20 millim.

Genus GARUDINIA.

Garudinia, Moore, Lep. Ceyl. ii. p. 59 (1882) Type. *latana*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male ciliated; tibiae with the spurs rather long. Fore wing rather narrow, the costa arched, the apex rounded; vein 2 from middle of cell, curved at base; 5 absent; 6 from below upper angle; 9 absent; 10, 11 free; male with a strong costal fold extending to well beyond middle. Hind wing with vein 2 from middle of cell; 5 from well above angle; male with veins 6, 7 coincident; 8 from towards angle of cell; the apical area strongly excised, and the costa strongly arched; female with veins 6, 7 stalked.

SECT. I. Fore wing of male with the cell very long; a fringe of long hair on subcostal nervure; vein 1 *b* bent upwards beyond middle and 2 bent downwards so as almost to meet; 3, 4 from cell; 8 absent. Hind wing with patches of androconia on upperside near lower angle of cell and below costa towards apex; the subcostal nervure fringed with scales below; the cell long and veins 3, 4 from angle of cell.

- A. Fore wing with postmedial patch not extending to costa ... *biplagiata*.
B. Fore wing with postmedial band extending to costa *simulana*.

547. *Garudinia biplagiata*. (Plate XXV. fig. 17.)

Garudinia biplagiata, Hmps. Moths Ind. iv. p. 498 (1896).

♂. White; palpi, antennæ, and fore and mid legs above blackish; abdomen dorsally tinged with fuscous, the anal tuft ochreous. Fore wing with large purplish-black patch from middle of cell to inner margin, rounded above and extending from near base to well beyond middle; a similar semilunar oblique postmedial patch from below costa to middle of termen and tornus. Hind wing semihyaline, suffused with fuscous towards termen.

Hab. BHUTÁN, 2500 feet (*Dudgeon*), 1 ♂ type. *Exp.* 18 millim.

548. *Garudinia simulana*.

Tospitis simulana, Wlk. xxviii. 429 (1863); Kirby, Cat. Het. p. 365.

White; abdomen dorsally tinged with fuscous, the anal tuft pale ochreous. Fore wing with purple-black antemedial patch from middle of cell to inner margin, rounded above and extending on inner margin from near base to beyond middle; an oblique band from costa beyond middle, its inner edge sinuous, its outer slightly excised below costa and below



Fig. 177.—*Garudinia simulana*, ♂. †.

vein 6 bent outwards to near termen. Hind wing fuscous, the cilia white.

Hab. BORNEO, Sarawak (Wallace), 1 ♂, 1 ♀ type. *Exp.* 20 millim.

SECT. II. Fore wing of male with the cell of moderate length; a patch of short hair in end of cell; veins 1 and 2 not bent; 3, 4 stalked; 7, 8 stalked. Hind wing without patches of androconia; the cell of moderate length, and veins 3, 4 stalked.

549. *Garudinia latana*.

Tospitis latana, Wlk. xxviii. p. 427 (1863); Moore, Lep. Ceyl. ii. p. 59, pl. 103. f. 2; Hmps. Moths Ind. ii. p. 98; Kirby, Cat. Het. p. 340.

White; palpi and antennæ blackish; fore and mid legs blackish above; abdomen tinged with fuscous above. Fore wing with oblique purplish-fuscous antemedial band rounded above and somewhat constricted in submedian fold; a postmedial oblique band, its inner edge somewhat sinuous, its outer edge excised below costa, expanding at middle almost to termen, then somewhat excised and contracting to tornus. Hind wing with the terminal area suffused with fuscous

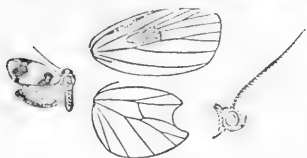


Fig. 178.

Garudinia latana, ♂. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

below the excision, the whole wing tinged with fuscous in female.

Hab. CEYLON (Templeton), 1 ♀ type, Pundaloya, 2 ♂, 1 ♀, Dickoya, 1 ♂, 1 ♀ (Green); BORNEO, Sandakan (Pryer), 1 ♀. *Exp.* 16–20 millim.

SECT. III. Hind wing of female with veins 3, 4 coincident.

550. *Garudinia successana*.

Tospitis successana, Wlk. xxxv. 1799 (1866); Kirby, Cat. Het. p. 365.

♀. Head and tegulæ white; antennæ fuscous; thorax purplish brown; fore legs white above; mid and hind legs and abdomen yellowish. Fore wing with the basal area purple; a broad medial golden-yellow band with white edges; a broad postmedial purple band with rather sinuous edges and contracting somewhat to costa and inner margin, the area beyond it white with golden-yellow apical patch. Hind wing pale yellowish, tinged with brown towards termen.



Fig. 179.—*Garudinia successana*, ♀. $\frac{3}{4}$.

Hab. CERAM (Wallace), 1 ♀ type. *Exp.* 16 millim.

Genus **EUCYCLOPERA.**

Eucyclopera, Hmps. Trans. Ent. Soc. 1895, p. 294 Type. *plagidisca*.

Proboscis fully developed; palpi porrect to just beyond the frons; antennæ of female minutely ciliated; tibiæ with the spurs moderate. Fore wing with the costa arched, the apex rounded; vein 2 from towards end of cell; 3, 4, 5 stalked; 6 from below upper angle; 7, 10, 11 free; 8, 9 absent. Hind wing with vein 2 from close to angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

551. *Eucyclopera plagidisca*.

Eucyclopera plagidisca, Hmps. Trans. Ent. Soc. 1895, p. 294; id. Moths Ind. iv. p. 497.

♀. Head, thorax, and abdomen fuscous; vertex of head and sides of tegulæ white; anal tuft grey. Fore wing white; a leaden fuscous patch on basal area except towards costa; slight fuscous suffusion in cell and a trilobate darker patch in and beyond end of cell, each lobe centred with white, a pale olive-brown quadrate patch below it on inner area; a pale olive-brown



Fig. 180.—*Eucyclopera plagidisca*, ♀. $\frac{3}{2}$.
(From Moths Ind. vol. iv.)

band incurved below apex and not reaching costa, becoming terminal below vein 3. Hind wing and underside of fore wing fuscous.

Hab. BHUTÁN (*Dudgeon*), 1 ♀ type. *Exp.* 18 millim.

Genus **PADENIA.**

Padenia, Moore, Lep. Ceyl. ii. p. 58 (1882) Type. *transversa*.

Proboscis fully developed; palpi porrect, extending to just beyond the frons; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing with the costa arched; vein 2 from middle of cell, curved at base; 3 from close to 2 in male; 4, 5 coincident; 6, 7, 8 stalked, 9 absent; 10, 11 from cell, or 10 shortly stalked with 6, 7, 8; male with a very broad costal fold on underside extending nearly to apex; female with vein 3 from close to angle of cell; 4, 5 strongly stalked. Hind wing of male with vein 2 from towards angle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 coincident; 8 from middle of cell; the costal area expanded and fringed with long hair; the apex strongly excised down to vein 5; female with veins 6, 7 strongly stalked.

- A. Fore wing with the bands purplish black, the antemedial band slightly angled in cell *transversa*.
B. Fore wing with the bands cupreous fuscous, the antemedial band straight, oblique *duplicana*.

552. *Padenia transversa*.

Cyllene transversa, Wlk. ii. 544 (1854); Moore, Lep. Ceyl. ii. p. 59, pl. 103. f. 1; Hmps. Moths Ind. ii. p. 98; Kirby, Cat. Het. p. 295.

Lithosia bifasciata, Feld. Reis. Nov. pl. 106. f. 11 (1874).

Yellowish white; patagia and thorax with metallic purplish-black patches; legs orange-yellow. Fore wing with the costa black to the antemedial purplish-black band, which is slightly angled in cell; a similar band from costa beyond middle, oblique and slightly sinuous to vein 4, where it is angled and becomes subterminal. Hind wing in male with a very obscure oblique shade



Fig. 181.—*Padenia transversa*. ♂. (From Moths Ind. vol. ii.)

from termen at vein 5 to inner margin above tornus. Underside of fore wing in male with the costal fold orange, with dark spot on it beyond middle and fuscous suffusion on terminal area; the fringe of hair on hind wing brown.

Hab. CEYLON (*Templeton*), 1 ♀ type, Dickoya, Pundaloya (*Green*), 2 ♂, 2 ♀; ANDAMANS. *Exp.* 24 millim.

Subsp. 1. Fore wing with the bands broader and more distinctly angled.

Hab. NILGIRIS, 2 ♀ (*Hampson*).

553. *Padena duplicana*. (Plate XXV. fig. 16.)

Tospitis duplicana, Wlk. xxviii. p. 429 (1863); Kirby, Cat. Het. p. 365.

Pure white; patagia and thorax with cupreous-fuscous patches; palpi and legs tinged with orange-yellow. Fore wing with oblique cupreous-fuscous antemedial band expanding at inner margin; a similar band from costa beyond middle, oblique and slightly sinuous to vein 3, where it is angled and becomes subterminal. Underside of fore wing with the costal fold tinged with orange; the fringe of hair on hind wing brown.

Hab. BURMA, Rangoon (*Scott*), 1 ♀; BORNEO, Sandakan (*Pryer*), 1 ♀, Sarawak (*Wallace*), 1 ♀ type; SUMATRA (*Forbes*), 1 ♂; JAVA, Arjuno (*Doherty*), 1 ♂. *Exp.* 24 millim.

Genus **STENARCHA**, nov.

Type, *S. stenopa*.

Proboscis fully developed; palpi oblique, short; antennæ of male with bristles and cilia; tibiae with the spurs moderate. Fore wing with vein 2 from beyond middle of cell; 3 from close to angle; 4, 5 stalked; 6 from below upper angle; 7, 8, and 10 stalked; 9 absent; 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4, 5 stalked; 6, 7 very strongly stalked; 8 from middle of cell.

*554. *Stenarcha stenopa*. (Plate XXV. fig. 27.)

Chiriphe stenopa, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 732 (1886); Kirby, Cat. Het. p. 348.

♂. Head and palpi whitish; antennæ pale fuscous; thorax fuscous, the metathorax whitish; abdomen grey; legs whitish, the fore and hind legs fuscous above. Fore wing fuscous, irregularly irrorated with white; ante- and postmedial irregular white bands edged with fuscous, the former indented on outer side below the cell, the latter with bidentate indentation on inner edge at middle and a bidentate projection below it; a whitish spot at apex almost conjoined to one below apex; cilia whitish, with fuscous spots at base. Hind wing pale brownish fuscous, tinged with ochreous towards base; cilia whitish.

Hab. W. AUSTRALIA, Albany. *Exp.* 17 millim. Figured from a drawing in Coll. Meyrick.

Genus **NARASODES**.

Type.

Narasodes, Moore, Lep. Ceyl. iii. p. 535 (1887)..... *punctana*.
Tampea, Snell. Tijds. v. Ent. xl. p. 226 (1897) *lithosioides*.

Proboscis fully developed; palpi slender, porrect, and reaching well beyond the frons; antennæ ciliated, tibiae with the spurs moderate. Fore wing short and broad, the costa arched; vein 2 from middle of cell, curved at base; 3 from close to angle; 5 from well above angle; 6 from below upper angle; 7, 8 stalked; 9 absent; 10, 11 free. Hind wing with vein 2 from towards angle of cell; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. (*Narasodes*). Hind wing with veins 3, 4 coincident.

555. *Narasodes punctana*.

Tospitis punctana, Wlk. xxviii. 431 (1863); Moore, Lep. Ceyl. iii. p. 536, pl. 211. f. 7; Hmps. Moths Ind. ii. p. 95; Kirby, Cat. Het. p. 361.

Head, thorax, and abdomen ochreous or ochreous white; palpi and fore tibiae tinged with fuscous above. Fore wing pale ochreous, more or less suffused with rufous brown, leaving the basal, costal, and apical areas pale; some black scales sometimes present in submedian fold; a very indistinct oblique waved ante-medial line; an indistinct line from middle of costa bent outwards to lower angle of cell, where there is a tuft of blackish scales, then erect; the postmedial line indistinct, arising near the medial line, very oblique from costa to vein 5, then subterminal; some black scales or points on costa and termen towards apex. Hind wing yellowish white, more or less tinged with fuscous, the termen ochreous.



Fig. 182.

Narasodes punctana, ♂. $\frac{3}{2}$.
 (From Moths Ind. vol. ii.)

Hab. CALCUTTA (*Atkinson*), 1 ♂; CEYLON (*Templeton*), 1 ♂ type, Pundaloya (*Green*), 1 ♂, 1 ♀, Hambantota (*Pole*), 3 ♂, 1 ♀. *Exp.* 12–16 millim.

SECT. II. (*Tampea*). Hind wing with veins 3, 4 stalked.

556. *Narasodes lithosioides*.

Tampea lithosioides, Snell. Tijds. v. Ent. xl. p. 226 (1897).

♂. Head and thorax ochreous brown; abdomen fuscous, the anal tuft and ventral surface yellowish. Fore wing rufous, the costa somewhat angled beyond middle, then oblique to apex, and with a very obscure pale line just below it across apical area. Hind wing fuscous. Underside with the apical area of fore wing and



Fig. 183.—*Narasodes lithosioides*, ♂. 3.

costal area of hind wing to beyond middle yellowish.

Hab. BORNEO, Pulo Laut (*Doherty*), 1 ♂; JAVA, type ♂ in Coll. Staudinger. *Exp.* 16 millim.

Genus **MACADUMA**.

<i>Macaduma</i> , Wlk. xxxv. 1704 (1866)	Type. <i>tortricella</i> .
<i>Psapharacis</i> , Turner, Trans. R. Soc. S. Austr. 1899, p. 14.....	<i>toxophora</i> .

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs long; abdomen of male with lateral tufts of hair on terminal segments and the anal tuft greatly developed. Fore wing short and broad, the costa highly arched and somewhat angled at middle, the apex truncate, the termen produced and angled just above middle; vein 2 from well beyond middle of cell, curved at base; 3 from close to angle; 5 from well above angle; 6 from well below upper angle; 7 and 9 stalked; 8 from 7 beyond 9 or absent; 10, 11 free. Hind wing with vein 2 from well beyond middle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. (*Macaduma*). Fore wing with vein 8 absent.

557. *Macaduma tortricella*.

Macaduma tortricella, Wlk. xxxv. 1705 (1866); Hmps. J. Bomb. N. H. Soc. 1897, p. 438; Kirby, Cat. Het. p. 341.

♂. Head and thorax chestnut with a purplish tinge; legs yellowish; abdomen fuscous, the anal tuft yellow. Fore wing chestnut, tinged with purplish on costa and inner area; cilia dark at angle of termen. Hind wing yellowish white, rather deeper ochreous at termen.



Fig. 184.—*Macaduma tortricella*, ♂. 1.

♀. Head, thorax, and fore wing dull reddish brown with a slight purplish tinge; hind wing and anal tuft fuscous.

Hab. ASSAM, Khásis, 1 ♀; JAVA (*Horsfield*), 1 ♂ type, Arjuno (*Doherty*), 1 ♂; S.W. N. GUINEA, Kapaur (*Doherty*), 1 ♀. *Exp.* 16–22 millim.

SECT. II. (*Psapharacis*). Fore wing with vein 8 from 7 beyond 9; fore wing with a slight tuft of hair at angle of costa.

- A. Fore wing irrorated with silvery blue scales *micans*.
- B. Fore wing without silvery scales.
 - a. Fore wing deep purple *corvina*.
 - b. Fore wing uniform brown *fusca*.
 - c. Fore wing with whitish discoidal spot and black postmedial mark above inner margin *toxophora*.

558. **Macaduma micans**, n. sp. (Plate XXV. fig. 4.)

♀. Head, thorax, and fore wing black-brown, irrorated with a few silvery blue scales; (abdomen wanting). Fore wing with fulvous discoidal spot; the costa towards apex and termen below apex fulvous, with silvery spots below and before them. Hind wing fuscous, paler towards base.

Hab. MYSEL (*Wallace*), 1 ♀ type. *Exp.* 20 millim.

559. **Macaduma corvina**.

Cisthene corvina, Feld. Reis. Nov. pl. 138. f. 63 (1875); Kirby, Cat. Het. p. 289.

Deep purple; abdomen and hind wing black-brown slightly tinged with purple.

Hab. FIJI (*Mathew*), 1 ♂, 1 ♀. *Exp.* 20 millim. Type † in Coll. Rothschild.

560. **Macaduma fusca**, n. sp.

♂. Uniform fuscous brown with a slight purplish tinge; legs, ventral surface of abdomen, and anal tuft ochreous. Fore wing with the costal edge somewhat rufous.



Fig. 185.—*Macaduma fusca*, ♂. $\frac{1}{2}$.

♀. Legs, ventral surface of abdomen, and anal tuft fuscous.

Hab. S.W. N. GUINEA, Kapaur (*Doherty*), 1 ♂, 1 ♀ type. *Exp.* 18 millim.

*561. *Macaduma toxophora*. (Plate XXV. fig. 26.)

Psapharacis toxophora, Turner, Trans. R. Soc. S. Austr. 1899, p. 15.

♀. Head and thorax greyish brown; abdomen greyish fuscous. Fore wing greyish brown, irrorated with a few darker scales; the costal area tinged with white; subbasal and medial small black spots on costa; a white discoidal spot; the postmedial line indistinct, arising from a black spot on costa below which it is strongly bent outwards, then minutely dentate, erect, and with a black mark on it towards inner margin; some black points on the excised part of costa and a dark mark on the terminal excision below apex. Hind wing fuscous.

Hab. QUEENSLAND, Brisbane, type † ♀ in Coll. Turner. *Exp.* 20 millim.

Genus *OCROSIA*, nov.

Type, *O. reversa*.

Proboscis fully developed; palpi porrect, slender, reaching just beyond frons; antennæ of male with bristles and cilia; tibiæ with the spurs long. Fore wing rather narrow, the costa arched towards apex, the termen oblique; vein 2 from long before angle of cell, oblique; 3 from near angle; 4, 5 on a long stalk; 6, 7, 8, 9, 10 stalked, 7 given off beyond 9; 11 from close to angle of cell, free. Hind wing with vein 2 from close to angle of cell; 3, 4 coincident; 5 from well above angle, curved; 6, 7 coincident; 8 from middle of cell; male with an elliptical patch of white androconia in cell on underside covered by the costal area of hind wing, which is reduced to a large lobe fringed with long hair, the apical part being truncate and veins 5, 6, 8 very short.

562. *Ocrosia reversa*.

Lithosia reversa, Wlk. Journ. Linn. Soc., Zool. vi. p. 105 (1862); Swinh. Cat. Het. Mus. Oxon. p. 105; Kirby, Cat. Het. p. 325.

♂. Uniform fulvous orange; antennæ and fore tibiæ and tarsi tinged with fuscous.



♀. Deeper orange; abdomen fuscous, with the anal tuft orange; hind wing fuscous, with the termen and cilia yellow; underside of both wings fuscous, with the margins yellow.

Hab. BORNEO, Sarawak (*Wallace*), type † ♀ in Mus. Oxon.; JAVA, Mt. Arjuno, 3000 feet (*Doherty*), 1 ♂, 1 ♀. *Exp.* 18 millim.

Genus *HOLOCHREA*, nov.

Type, *H. xanthogramma*.

Proboscis fully developed; palpi slender, obliquely upturned, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs long; abdomen of male with lateral tufts of long hair from 3rd segment. Fore wing rather

long and narrow, the costa arched, the termen short; vein 2 from long before angle of cell, oblique; 3 from towards angle; 5 from well above angle; 6, 7, 8, 9, 10 stalked, 7 from beyond 9; 11 free, oblique; male with the cell contracted towards base by approximation of subcostal and median nervures; an elliptical patch of white androconia in cell covered by a large lobe on costa of hind wing, the apical area of which is truncate. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 coincident; 8 from beyond middle of cell; veins 5, 6, 8 short to the truncate area.

563. *Holochrea xanthogramma*, n. sp.

♂. Fulvous orange. Fore wing with obliquely curved orange



Fig. 187.—*Holochrea xanthogramma*, ♂. $\frac{1}{2}$.

line from costa beyond middle, where it arises from a black point to termen above tornus. Hind wing paler.

Hab. SANGIR (*Doherty*), 1 ♂ type. *Exp.* 20 millim.

Genus *OMIOSIA*, nov.

Type, *O. fuscipennana*.

(Head wanting); tibiae with the spurs long. Fore wing with the costa arched, the apex rounded, the inner margin strongly lobed at middle; vein 2 from middle of cell, curved at base; 3 from close to angle; 4, 5 stalked; 6 from below upper angle; 7, 8 stalked; 9 absent; 10, 11 stalked, 11 anastomosing with 12. Hind wing with vein 2 from near angle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 on a long stalk; 8 from near end of cell; male with a patch of androconia in and beyond end of cell on upperside; the inner area enlarged and the tornus lobed.

564. *Omiosia fuscipennana*.

Tospitis fuscipennana, Wlk. xxviii. 431 (1863); Kirby, Cat. Het. p. 365.

♂. Ochreous white. Fore wing with large elliptical black-brown patch on medial area above the lobe, with reddish suffusion below it. Hind wing with the costal half white, the patch of androconia white on a nacreous ground.

Hab. BORNEO, Sarawak. (*Wallace*), 1 ♂ type. *Exp.* 18 millim.

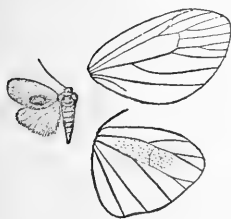


Fig. 188.
Omiosia fuscipennana, ♂. $\frac{1}{2}$.

Genus **PACHYCEROSIA**, nov.Type, *P. bipuncta*.

Proboscis fully developed; palpi upturned, reaching vertex of head; frons somewhat prominent; antennæ of male laminate and serrate; tibiae with the spurs long. Fore wing narrow, the costa strongly arched at base, then nearly straight; vein 2 from middle of cell, curved at base; 3 from near angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked, 5 absent; 6, 7 stalked; 8 from middle of cell.

565. *Pachycerosia bipuncta*, n. sp.

♂. Grey-brown. Fore wing with slight subbasal dark mark below the cell and black points in middle of cell and on discocellulars.

Fig. 189.—*Pachycerosia bipuncta*, ♂. 1.

Hab. ANDAMANS, 1 ♂ type. *Exp.* 18 millim.

Genus **TOSPITIS**.

Type.

Tospitis, Wlk. xxviii. 426 (1863) *nulliferana*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male ciliated; tibiae with the spurs long. Fore wing short and broad, the costa highly arched at base and fringed with rough hair; vein 2 from middle of cell; 3, 4 from angle; 5 from well above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 stalked; 8 from towards end of cell.

566. *Tospitis nulliferana*.

Tospitis nulliferana, Wlk. xxviii. 427 (1863); Kirby, Cat. Het. p. 365.

♂. Head, thorax, and abdomen yellowish white. Fore wing pale brown; the base, a costal fascia, and a terminal band narrowing from costa to a point at termen pale yellow; the costa tinged with orange at base, an oblique orange line from costa before middle to subcostal nervure, an indistinct spot on middle of costa, and a more prominent discoidal



Fig. 190.

Tospitis nulliferana, ♂. 1.

spot. Hind wing pale brownish; the cilia pale yellow.

Hab. BORNEO, Sarawak (Wallace), 1 ♂ type. *Exp.* 12 millim.

antenna with bristles and cilia; tibiæ with the spurs long; abdomen long. Fore wing with the costa arched near base, then nearly straight; vein 2 from middle of cell, oblique; 3, 4 stalked; 5 from angle of cell; 6 from below upper angle; 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards end of cell; 3, 4 stalked in female, coincident in male; 5 absent; 6, 7 stalked; 8 from middle of cell; the inner area of male lobed and with a fringe of rough scales below vein 1 on underside, an elliptical swelling on end of subcostal nervure on underside, and a tuft of hair from base of median nervure on upperside.

A. Fore wing with subterminal orange band.

a. Fore wing with hamate fascia below the cell.

a¹. Fore wing with oblique subtriangular orange patch on costa before middle *pardalina*.

b¹. Fore wing with small longitudinal antemedial orange spot below costa *cuneiplena*.

b. Fore wing without hamate fascia below the cell.

a¹. Hind wing with orange patch.

a². Fore wing with elongate postmedial patch below the costa *semiclusa*.

b². Fore wing with oblique postmedial band from below costa to vein 2.

a³. Fore wing with two yellow streaks above middle of inner margin *goldei*.

b³. Fore wing with one yellow streak above middle of inner margin *xenodora*.

b¹. Hind wing without orange patch *triplagiata*.

B. Fore wing without subterminal band *cærulescens*.

569. *Darantasia pardalina*.

Cyme pardalina, Feld. Reis. Nov. pl. 139. f. 20 (1875); Kirby, Cat. Het. p. 300.

♂. Head orange, with purplish-black patch on frons and vertex; tegulæ, patagia, and thorax purplish black, orange in front; abdomen black-brown, with slight segmental orange lines becoming bands on terminal half; legs orange. Fore wing black-brown, with three wedge-shaped orange fasciæ on basal area conjoined at base; an oblique triangular patch from costa before middle, and another above middle of inner margin; a fascia below cell and above vein 2, its upper edge excised and hooked at extremity where it extends up to vein 5; a somewhat triangular spot beyond the cell; a subterminal fascia from below costa to above inner margin, attenuate below. Hind wing black-brown, with wedge-shaped orange fascia from middle of median nervure to termen, where it is conjoined to a terminal band from tornus; underside with the subcostal swelling orange; a subterminal band extending to below costa.

♀. Hind wing with orange fascia on costa to middle, where it is conjoined to a rounded patch extending to near tornus.

Hab. SULA (Wallace), 1 ♂, 1 ♀. *Exp.* 28 millim.

Subsp. 1. Hind wing black-brown above except for more or less orange near termen below vein 2.

Hab. CELEBES (Doherty), 2 ♀. *Exp.* 26 millim. Type † in Coll. Rothschild.

570. *Darantasia cuneiplena*.

Darantasia cuneiplena, Wlk. Journ. Linn. Soc., Zool. iii. p. 186 (1859); Swinh. Cat. Het. Mus. Oxon. p. 99, pl. iii. f. 17; Kirby, Cat. Het. p. 299.

Ammatho hieroglyphica, Butl. Trans. Ent. Soc. 1877, p. 343; Kirby, Cat. Het. p. 309.

♂. Black; palpi, frons, tegulæ, patagia, a patch on metathorax, and greater part of legs orange; abdomen with orange bands on dorsum at base and towards extremity, and the ventral surface orange. Fore wing with short orange streaks from base below costa, in cell, and on vein 1, the first slight; a triangular spot below

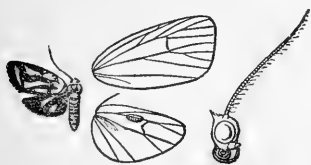


Fig. 192.

Darantasia cuneiplena, ♂. $\frac{1}{4}$.

middle of costa; a wedge-shaped streak from below middle of cell to near termen, its upper edge excised towards extremity, which runs up to a point on vein 4; a short wedge-shaped streak above middle of inner margin; a triangular patch below costa beyond middle; a subterminal band between veins 7 and 2 ending in a point below. Hind wing with orange spot on middle of costa; an elongate spot from below middle of cell to well beyond lower angle and a subterminal spot towards tornus.

♀. Hind wing without the orange spot towards tornus.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♀, type *hieroglyphica*; PULO LAUT (*Doherty*), 2 ♂, 1 ♀; SUMATRA. *Exp.* 22 millim. Type† in Mus. Oxon.

*571. *Darantasia semiclusa*.

Coutha semiclusa, Wlk. xxxi. 234 (1864); Swinh. Cat. Het. Mus. Oxon. p. 98, pl. iii. f. 8; Kirby, Cat. Het. p. 333.

Cyme ochropyga, Feld. Reis. Nov. pl. 139. f. 15 (1875); Kirby, Cat. Het. p. 300.

Black; head orange, a spot on frons, and antennæ black; tegulæ and patagia edged with orange; legs orange, fore and mid tibiae and tarsi striped with black; abdomen with the last four segments orange with black segmental lines. Fore wing with a purplish tinge; an orange fascia just below costa to near middle and short streaks on median nervure and inner margin; an elongate patch below costa just beyond middle; a wedge-shaped subterminal patch from just below costa to vein 1. Hind wing of female with irregular orange triangular patch from lower angle of cell to near tornus, joined by a slight line on discocellulars; male with the patch larger and extending to termen.

Hab. CERAM (*Wallace*), 1 ♀ type† in Mus. Oxon. *Exp.* 24 millim. Type† ♂ *ochropyga* in Coll. Rothschild.

*572. *Darantasia goldei*. (Plate XXV. fig. 19.)*Darantasia goldei*, Druce, A. M. N. H. (7) i. p. 212 (1897).

♀. Head and thorax orange-yellow; antennæ brown; fore legs marked with brown; abdomen brown, the last two segments yellow. Fore wing brown shot with blue; the base yellow, emitting short streaks on costa and median nervure, and a streak to beyond middle on vein 1; an oblique postmedial rather wedge-shaped patch from just beyond costa to vein 3, and another on termen ending at vein 1. Hind wing brown, with large yellow patch in, beyond, and below cell.

Hab. N. GUINEA, Port Moresby (*Goldie*), type† ♀ in Coll. Druce. *Exp.* 24 millim.

*573. *Darantasia xenodora*. (Plate XXV. fig. 20.)

Peronettis xenodora, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 242 (1886); Kirby, Cat. Het. p. 300.

♂. Head and thorax orange-yellow; antennæ blackish, tinged with yellow towards extremity; abdomen black, the terminal three segments orange-yellow; fore tibiæ and tarsi fuscous. Fore wing black shot with purple; an orange-yellow streak on basal third of costa, expanding into a patch at base; a slender streak in submedian fold to beyond middle; an oblique postmedial band from below costa to vein 2, its outer edge rounded; a triangular subapical patch from below costa to vein 3, its inner edge excised. Hind wing black, a subquadrate orange-yellow patch from below costa to near termen below middle, its inner edge indented in cell.

Hab. N. GUINEA, Fly River. *Exp.* 22 millim. Figured from drawing in Coll. Meyrick.

*574. *Darantasia triplagiata*. (Plate XXV. fig. 21.)*Darantasia triplagiata*, Holl. ined.

♀. Head orange; frons with black spot; tegulæ and patagia fuscous edged with orange; pectus and legs orange and fuscous; abdomen with the basal half fuscous above, the terminal half and pectus orange; wings fuscous brown. Fore wing with orange streak on base of median nervure; an orange fascia below basal third of costa, followed by an irregular elongate spot; a wedge-shaped subterminal patch extending from below costa to vein 2.

Hab. BOURU (*Doherty*). *Exp.* 24 millim. Type† ♀ in Coll. Holland.

575. *Darantasia cærulescens*. (Plate XXV. fig. 22.)*Darantasia cærulescens*, Druce, A. M. N. H. (7) i. p. 213 (1897).

♂. Head and thorax orange; antennæ black; legs orange, the tibiæ and tarsi streaked with black; abdomen black, the last four segments orange. Fore wing black, strongly shot with purple; short orange basal fasciæ on costa, median nervure, and inner

margin, conjoined at base; a slight streak in submedian fold to middle of wing; an oblique postmedial patch from below costa to vein 3. Hind wing black, with large orange patch in, beyond, and below the end of cell extending down to submedian fold.

Hab. N. GUINEA, Fergusson I. (*Meek*), 2 ♂. *Exp.* 28 millim. Type † in Coll. Druce.

Genus **HELIOSIA**, nov.

Type, *H. jucunda*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing with vein 2 from middle of cell, curved at base; 3, 4 shortly stalked; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

- | | |
|--|------------------------|
| A. Fore wing orange-red, with broad fuscous antemedial and subterminal bands meeting on inner margin | <i>rufa</i> . |
| B. Fore wing orange, with the base and two bands black... | <i>jucunda</i> . |
| C. Fore wing ochreous, with discoidal black point | <i>monosticta</i> (♀). |
| D. Fore wing pale brown, with apical yellow band | <i>crocopera</i> (♀). |

*576. *Heliosia rufa*. (Plate XXVI. fig. 1.)

Mitochondria rufa, Leech, Entom. xxiii. p. 82 (1890); Kirby, Cat. Het. p. 312.

♂. Head, thorax, and abdomen orange, thorax slightly tinged with scarlet; fore tibiæ with fuscous streak. Fore wing orange-red; an oblique fuscous antemedial band with the veins crossing it orange, widening from below costa to inner margin, where it joins the broad fuscous band on terminal area which does not reach the costa, its inner edge angled in discal and submedian folds, its outer edge irregular with two black subapical points on it and one at middle, then extending almost to termen. Hind wing orange slightly tinged with red; a broad terminal fuscous band.

Hab. C. CHINA, Chang-yang, type † in Coll. Leech. *Exp.* 24 millim.

577. *Heliosia jucunda*.

Pallene jucunda, Wlk. ii. 543 (1854); Kirby, Cat. Het. p. 295.

Tospitis transitana, Wlk. xxviii. 430 (1863).

Orange-yellow; palpi blackish at sides; the ends of patagia and meso- and metathorax black;

abdomen dorsally black except at extremity. Fore wing with the base black; an oblique medial band slightly angled below the cell, then sinuous; a postmedial band somewhat sinuous and angled inwards in discal fold. Hind wing with terminal



Fig. 193.—*Heliosia jucunda*, ♂. $\frac{3}{2}$.

blackish band, leaving the apex and cilia orange.

Hab. QUEENSLAND, Duaringa, Gayndah; N. S. WALES, Moreton Bay (*Diggles*), 1 ♂ type; Sydney (*Damel*), 1 ♂, 2 ♀, type *transitana*, (*Raynor*) 1 ♀, (*Mathew*) 2 ♂, 2 ♀. *Exp.* 22 millim.

578. *Heliosia monosticta*, n. sp. (Plate XXVI. fig. 9.)

♀. Straw-yellow; frons dark brown; abdomen tinged with fuscous, the anal tuft ochreous. Fore wing with the costa dark brown; a black discoidal point; some minute black points on termen towards apex, and one above tornus. Hind wing tinged with fuscous, the cilia yellowish white.

Hab. BORNEO, Pulo Laut (*Doherty*), 1 ♀ type. *Exp.* 12 millim.

579. *Heliosia crocopera*, n. sp. (Plate XXVI. fig. 10.)

♀. Head and thorax orange-yellow; legs and abdomen brownish. Fore wing pale brown, the disk somewhat ochreous; the base yellow; a yellow terminal band broad at apex, narrowing to a point above tornus. Hind wing pale brownish.

Hab. N. GUINEA, Kapaur (*Doherty*), 1 ♀ type. *Exp.* 10 millim.

Genus **HALONE.**

	Type.
<i>Halone</i> , Wlk. ii. 540 (1854)	<i>sobria</i> .
<i>Mosoda</i> , Wlk. xxxv. 1899 (1861)	<i>sinuata</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head; tibiæ with the spurs long. Fore wing with vein 2 from beyond middle of cell; 3 from well before angle; 5 from well above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Antennæ of male bipectinate, with moderate branches.

580. *Halone flavescens*.

Æmene flavescens, Hmps. J. Bomb. N. H. Soc. 1897, p. 439.

♂. Palpi and frons fuscous; antennæ and vertex of head yellow; a fuscous bar between the antennæ; thorax and abdomen greyish fuscous, with some yellow patches on tegulæ and patagia; the hind legs, anal tuft, and ventral surface of abdomen yellowish. Fore wing ochreous, almost entirely suffused with fuscous black, leaving



Fig. 194.—*Halone flavescens*, ♂. 3.

a patch of yellow at base and medial patches on costa and from cell to inner margin; traces of waved antemedial, postmedial, and sub-terminal lines; a terminal series of points. Hind wing pale fuscous, the cilia yellowish.

Hab. ASSAM, Khâsis, 1 ♂ type. *Exp.* 20 millim.

SECT. II. Antennæ of male fasciculate, the basal joint with small tuft of scales.

- | | |
|--|-------------------|
| A. Fore wing with broad antemedial white band | <i>sejuncta</i> . |
| B. Fore wing with the basal area white, with diffused black markings | <i>ophiodes</i> . |
| C. Fore wing without white markings on basal area. | |
| a. Hind wing orange. | |
| a ¹ . Palpi with the basal joint whitish; hind wing orange, with the terminal band more or less broad towards tornus..... | <i>sinuata</i> . |
| b ¹ . Palpi wholly black; hind wing orange-yellow, with the black near tornus absent or slight | <i>sobria</i> . |
| b. Hind wing grey | <i>servilis</i> . |

581. *Halone sejuncta*.

Pitane sejuncta, Feld. Reis. Nov. pl. 140. f. 24 (1875); Kirby, Cat. Het. p. 348.

Head and tegulæ white; palpi and antennæ blackish; thorax blackish, with white patch on metathorax; legs brown and yellowish white; abdomen brown, with pale anal tuft. Fore wing with oblique-edged grey-brown basal patch, followed by a broad white band; a broad grey-brown medial band, its outer edge irregular and conjoined to a small spot beyond lower angle of cell; a broad grey-brown terminal band with sinuous inner edge; cilia ochreous, brown at apex, middle, and tornus. Hind wing yellowish, with indistinct sinuous postmedial line and fuscous terminal band; male with slight ridge of rough scales on basal half of wing above.

Hab. N. S. WALES, Sydney (*Mathew, Raynor*), 3 ♂, 6 ♀, Richmond R., 2 ♀; VICTORIA. *Exp.* 16-18 millim. Type† in Coll. Rothschild.

*582. *Halone ophiodes*. (Plate XXVI. fig. 8.)

Mosoda ophiodes, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 729 (1886); Kirby, Cat. Het. p. 348.

♂. Head ochreous white; palpi and antennæ blackish; thorax blackish, the posterior half suffused with ochreous white; abdomen ochreous yellow; legs black, banded with ochreous white, hind legs yellowish. Fore wing white, irrorated with a few black scales; two diffused subdentate blackish lines on basal area not reaching inner margin; a postmedial blackish band edged by the irregularly dentate medial and postmedial black lines, the latter bent outwards between veins 6 and 3, then incurved; a black-edged whitish 8-shaped discoidal spot, with a white spot on its outer edge; a diffused irregular subterminal line widely interrupted above and below middle; cilia ochreous white, chequered with black on apical half. Hind wing ochreous yellow; a diffused postmedial fuscous line conjoined at costa to a blackish apical patch; cilia blackish at base towards apex.

Hab. VICTORIA. *Exp.* 25 millim. Figured from drawing in Coll. Meyrick.

583. *Halone sinuata*.

Setina sinuata, Wllgrn. Wien. Ent. Mon. iv. p. 46 (1860); Kirby, Cat. Het. p. 358.

Mesoda anartoides, Wlk. xxxv. 1900 (1866); Kirby, Cat. Het. p. 348.

Head, thorax, and abdomen black; basal joint of palpi whitish; antennæ with the tuft of scales on basal joint whitish; vertex of head whitish, with black central patch; thorax mixed with whitish scales, and with whitish patch on metathorax; tibiæ and tarsi with pale rings; abdomen with the anal tuft and ventral surface orange. Fore wing dark reddish brown, irrorated with whitish scales; indistinct irregularly-dentate subbasal, ante- and postmedial dark



Fig. 195.—*Halone sinuata*, ♂. ½.

lines defined by grey scales, the two latter angled inwards in submedian fold, the last bent outwards between veins 6 and 4 and angled inwards in discal fold; a white discoidal spot; a white point at apex; a terminal lunule below apex, and two above tornus. Hind wing orange, with terminal black band varying much in width, its inner edge bent outwards to near termen between vein 3 and submedian fold and irregular towards tornus.

Hab. N. S. WALES, Sydney (*Damel, Mathew, Raynor*), type *anartoides*. *Exp.* 24 millim. Type † in Mus. Stockholm.

Larva feeds on lichens on rocks.

584. *Halone sobria*. (Plate XXVI. fig. 23.)

Halone sobria, Wlk. ii. 540 (1854); Kirby, Cat. Het. p. 347.

Mesoda consolatrix, Rosenst. A. M. N. H. (5) xvi. p. 381 (1885); Kirby, Cat. Het. p. 348.

Mesoda hemichroa, Turner, Trans. R. Soc. S. Austr. 1899, p. 18.

♂. Head, thorax, and abdomen black; fore tibiæ and tarsi black ringed with whitish, hind legs pale; abdomen with the anal tuft and ventral surface yellow. Fore wing fuscous brown irrorated with grey; indistinct irregularly-dentate subbasal, ante- and postmedial dark lines, the two latter angled inwards in submedian fold, the last bent outwards between veins 6 and 4 and angled inwards in discal fold. Hind wing orange-yellow, with some fuscous suffusion on apical area.

Ab. 1. Vertex of head whitish, with black patch; patagia tipped with white; metathorax with white points; fore wing with the lines defined by whitish, broadly so on antemedial line from costa to median nervure and on postmedial line at costa; a terminal

series of irregular whitish lunulate spots; hind wing with some fuscous towards tornus.

Hab. AUSTRALIA (*not Natal*), 1 ♂, 1 ♀, type; QUEENSLAND, 1 ♂: N. S. WALES, Bathurst, Mt. Kosciusko; VICTORIA, Melbourne (*Lucas*), 2 ♂, type *consolatria*. *Exp.* 24 millim. Type† *hemichroa* in Coll. Turner.

585. *Halone servilis*. (Plate XXVI. fig. 11.)

Mosoda servilis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 731 (1886); Kirby, Cat. Het. p. 348.

Head, thorax, and abdomen grey strongly mixed with fuscous; claspers yellowish white. Fore wing grey, strongly irrorated with fuscous black; the costa black towards base; an indistinct sub-basal line dentate below costa and obsolete towards inner margin; an antemedial line defined by whitish on inner side, dentate below costa, then oblique and sinuous; a white discoidal lunule; the postmedial line minutely dentate, indistinct, strongly bent outwards below costa, then oblique; cilia chequered white and black. Hind wing fuscous grey, pale towards base and inner margin.

Hab. N. S. WALES, Sydney (*Mathew*), 1 ♀, type† ♂ in Coll. Meyrick. *Exp.* 20 millim.

SECT. III. Antennæ of male ciliated.

586. *Halone diffusifascia*. (Plate XXVI. fig. 12.)

Æmene diffusifascia, Swinh. A. M. N. H. (6) xvii. p. 362 (1896).

♂. Grey; palpi blackish; tegulæ, patagia, and metathorax with blackish patches; legs banded with blackish; abdomen tinged with brown. Fore wing strongly irrorated with brown; a triangular black-brown patch on costa near base; a sinuous antemedial line arising from a spot on costa; a black point in middle of cell; a diffused medial brown band angled outwards in cell; two discoidal points; the postmedial line minutely dentate, excurved beyond the cell, and obliquely below vein 4; a quadrate black patch beyond it on costa, a spot between veins 4 and 6, and a smaller spot on inner margin; a terminal series of points; cilia marked with black at apex and middle. Hind wing fuscous, the underside with discoidal spot and indistinct curved postmedial line.

Hab. ASSAM, Khâsis, 2 ♂. *Exp.* 20 millim.

Genus BLABIODES, nov.

Type, *B. snelleni*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male minutely serrate and fasciculate; tibiæ with the spurs moderate. Fore wing long and narrow; vein 2 from beyond middle of cell, curved at base; 3, 4 on a long stalk; 5 absent; 6 from well below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free; male with short thick fringe of hair from extremity of subcostal nervure and loose fringe of longer hair from median nervure on underside. Hind wing with vein 2 from beyond middle of

cell; 3, 4 on a long stalk; 5 from long above angle of cell; 6, 7 from upper angle; 8 from towards upper angle; the apex strongly excised; a slight patch of androconia below middle of costa.

*587. *Blabioides snelleni*.

Pseudoblabes snelleni, Rits. Pet. Nouv. i. p. 479 (1875); Kirby, Cat. Het. p. 376.



Fig. 196.—*Blabioides snelleni*, ♂. 3.

♂. Dark red-brown with a purplish tinge; base of patagia orange-yellow. Fore wing with orange medial band narrowing to inner margin, its outer edge angled at veins 7 and 2. Hind wing semihyaline, the

terminal area purplish brown, the inner area orange.

Hab. JAVA, Ambarawa, type † ♂ in Mus. Leyden. *Exp.* 16 millim.

Genus **GARUDINISTIS**, nov.

Type, *G. eburneana*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs rather long. Fore wing rather narrow, the costa arched at base; the cell very narrow in male, the subcostal and median nervures approximated; a fringe of long hair in submedian fold from near base to beyond middle; vein 2 from towards end of cell, oblique; 3, 4 on a long stalk; vein 5 and the discocellulars absent, and vein 6 from a point with 3, 4; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from close to angle of cell; 3, 4 strongly stalked; 5 absent; 6, 7 from upper angle; 8 from middle of cell.

588. *Garudinistis eburneana*.

Tospitis eburneana, Wlk. xxviii. 428 (1863); Kirby, Cat. Het. p. 365.

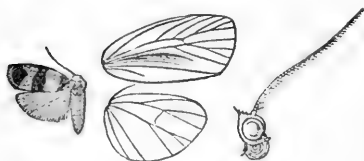


Fig. 197.—*Garudinistis eburneana*, ♂. 1.

♂. Ochreous white; the extremities of patagia and the thorax purplish brown; fore and mid tibiæ above tinged with fuscous. Fore wing with the base purple-brown; a somewhat oblique medial band expanding below the cell; a patch from costa before apex to termen

above tornus, its inner edge angled.

Hab. BORNEO, Sarawak (Wallace), 1 ♂, type. *Exp.* 20 millim.

Genus **STENOSCAPTIA**, nov.

Type, *S. venusta*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons;

antennæ of male ciliated; tibiæ with the inner spurs long, the outer short. Fore wing long and narrow; vein 2 from towards angle of cell; 3 from close to angle; 5 absent; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 coincident; 8 from middle of cell; male with the costa arched and a small patch of androconia below vein 8 near its origin.

589. *Stenoscaptia venusta*.

Mosoda venusta, Lucas, Proc. Linn. Soc. N. S. W. (2) iv. p. 1078 (1890); Kirby, Cat. Het. p. 348.

♂. Head, tegulæ, and shoulders orange-yellow; palpi and antennæ black; thorax and abdomen black; the greater part of legs and anal tuft yellow. Fore wing orange; the base black; a postmedial black band with slightly waved edge; a subterminal curved band expanding into a large patch near apex and ending at tornus. Hind wing orange, with ter-



Fig. 198.

Stenoscaptia venusta, ♂. 1.

terminal black band expanding towards costa.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♂. *Eup.* 22 millim.

Genus BYRSIA.

Byrsia, Wlk. xxxi. 193 (1864) Type. *dotata*.

Proboscis well developed; palpi short, upturned; antennæ of male with bristles and cilia; tibiæ with the spurs rather long. Fore wing rather narrow; vein 2 from middle of cell; 3, 4 stalked; 5 absent; 6 from below upper angle; 7, 8, and 10 stalked; 9 absent; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 on a long stalk; 5 from lower angle and strongly curved; the apex truncate in male and veins 6 and 7 from angle of cell, stalked in female; 8 from beyond middle of cell.

- A. Fore wing with the yellow extending to costa..... *aurantiaca*.
 B. Fore wing with the costal area black..... *dotata*.

590. *Byrsia aurantiaca*.

Hypocrita aurantiaca, Snell. Notes Leyd. Mus. viii. p. 4 (1886); id. Tijd. v. Ent. xxix. p. 33, pl. i. f. 1, 1 a (1886); Kirby, Cat. Het. p. 293.

♀. Head, thorax, and abdomen black; patagia with orange spots; tarsi, ventral surface of abdomen, and anal tuft whitish. Fore wing with the base black; a bright yellow area extending to well beyond middle, its outer edge oblique and slightly dentate at lower angle of cell and in submedian fold; an orange-red subterminal patch from below costa to vein 1, expanding above, attenuate below. Hind wing bright yellow; the inner area suffused with black; a terminal black-brown band expanding towards costa.

The figure of the type from Sumatra shows the subterminal patch

of fore wing much more reduced than in the specimen from Borneo, and a subapical spot present on underside.

Hab. MALACCA; BORNEO, Sandakan (*Pryer*), 1 ♀; SUMATRA, Deli; JAVA, Malang, 1 ♀. *Exp.* 20 millim.

591. *Byrsia dotata*.

Byrsia dotata, Wlk. xxxi. 193 (1864); Swinh. Cat. Het. Mus. Oxon. p. 99, pl. iii. f. 9.

Cyme princeps, Feld. Reis. Nov. pl. 139. f. 28 (1875); Snell. Tijds. v. Ent. xxii. p. 90, pl. 10. f. 5; Kirby, Cat. Het. p. 293.

♂. Head, thorax, and abdomen black; tarsi greyish. Fore wing black; a large orange patch from near base to well beyond middle, extending to below costa, its outer edge slightly dentate at vein 4 and submedian fold; a subterminal orange-red band from below costa to vein 1, attenuate below and rounded above. Hind wing black-brown; the costal area pale,



Fig. 199.—*Byrsia dotata*, ♂. 1.

with orange-tinged patch below it in cell; underside yellow, with terminal black band expanding towards costa, the inner area tinged with black.

♀. Hind wing with large triangular orange patch from base to beyond middle, extending to beyond lower angle of cell.

Hab. CELEBES (*Doherty*), 1 ♂, 1 ♀; AMBOINA; BATCHIAN; TIMOR (*Wallace*), 1 ♀ type. *Exp.* 22 millim.

Genus *NEOSCAPTIA*, nov.

Type, *N. collateralis*.

Proboscis fully developed; palpi porrect, extending to just beyond frons; antennæ ciliated; tibiæ with the spurs short. Fore wing rather narrow; vein 2 from beyond middle of cell; 3 from well before angle; 4, 5 coincident; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 from cell. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 stalked; 8 from before middle of cell.

592. *Neoscaptia collateralis*, n. sp.



Fig. 200.—*Neoscaptia collateralis*, ♀. 1.

♀. Black; anal tuft greyish. Fore wing with large bright yellow patch from before middle to well beyond middle, its outer edge sinuous and dentate at veins 6 and 2; a large cupreous-red subterminal patch from just below costa to above inner margin, expanding towards

costa. Hind wing with large bright yellow patch extending on costa from near base to beyond middle, with its apex near tornus.

Hab. S.W. N. GUINEA, Kapaur (*Doherty*), 1 ♀ type. *Exp.* 24 millim.

Genus **SCAPTESYLE.**

Type.

<i>Scaptesyle</i> , Wlk. ii. 378 (1854)	<i>tricolor</i> .
<i>Chiriphe</i> , Wlk. xxvi. 1691 (1862)	<i>monogrammaria</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing with vein 2 from beyond middle of cell; 3 from before angle; 4, 5 shortly stalked; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 from cell. Hind wing with vein 2 from middle of cell; 3, 4 stalked; 5 from above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing with vein 6 stalked with 7, 8, 9; hind wing with veins 3, 4 stalked almost to termen.

593. *Scaptesyle dichotoma*.

Chiriphe dichotoma, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 734 (1886); Kirby, Cat. Het. p. 348.

Head, thorax, and abdomen dark brown; vertex of head, tegulæ, and mesothorax pure white; legs and anal tuft whitish. Fore wing white; the base dark brown, emitting a costal fascia to the antemedial line which is incurved to costa and giving off in the cell a fascia curving up to the costa beyond middle, whence



Fig. 201.—*Scaptesyle dichotoma*, ♀. †.

an oblique line runs to the middle of the subterminal band which is curved, expanding into a patch at apex and ending at tornus; an oblique postmedial line from median nerve to inner margin and a spot on middle of termen. Hind wing red-brown.

Hab. QUEENSLAND, Brisbane, 1 ♂, Toowoomba; N. S. WALES, Sydney, type † in Coll. Meyrick; VICTORIA. *Exp.* 14–16 millim.

SECT. II. Fore wing with vein 6 from the cell.

- | | |
|--|------------------------|
| A. Wings yellow, with terminal black band. | |
| a. Fore wing with cupreous-red patch on terminal band | <i>tricolor</i> . |
| b. Fore wing with orange-red patch on terminal band... | <i>ixias</i> . |
| c. Fore wing with vermilion patch on terminal band... | <i>mirabilis</i> . |
| d. Fore wing without red patch on terminal band | <i>bicolor</i> . |
| B. Fore wing yellow, with blue-edged patches on basal and terminal areas; hind wing whitish..... | <i>aurigena</i> . |
| C. Fore wing yellow, with black bands..... | <i>æquidistans</i> . |
| D. Fore wing white, with black lines | <i>dictyota</i> . |
| E. Wings red-brown; fore wing with whitish postmedial line..... | <i>monogrammaria</i> . |

594. *Scaptesyle tricolor*.

Scaptesyle tricolor, Wlk. ii. 378 (1854); Hmps. Moths Ind. ii. p. 104; Kirby, Cat. Het. p. 293.

Head, thorax, and abdomen black; tegulæ and patagia bright

yellow; legs banded with pure



Fig. 202.—*Scaptosyle tricolor*, ♂. 1.
(From *Moths Ind.* vol. ii.)

white; abdomen with white bands on ventral surface and white genital tufts. Fore wing bright yellow; the base and costal edge black; the terminal third black, with large cupreous red patch occupying all but its edges, its inner edge sinuous and angled outward to upper angle of cell. Hind wing bright

yellow, with black patch on apical area extending down to vein 2 and continued as a narrow line for a short distance towards tornus.

Hab. ASSAM, Sylhet, 1 ♂, 1 ♀ type; BURMA, Rangoon, 1 ♂, 2 ♀, Ava, 1 ♀; PHILIPPINES; BORNEO, Kina Balu; SUMATRA (*Forbes, De Nicéville*), 2 ♀; JAVA; CELEBES, Minabassa. *Exp.* 26–32 millim.

595. *Scaptosyle ixias*, n. sp. (Plate XXVI. fig. 14.)

♂. Head, thorax, and abdomen black; tegulæ and patches on patagia bright yellow; palpi in front, coxæ, and bands on femora, tibiæ, tarsi, and ventral surface of abdomen white; anal tuft greyish. Fore wing with the base black; the medial area bright yellow except the costal edge; the terminal area black, extending on costal area to middle of wing, then running out to end of cell and sinuous to inner margin: a large subterminal orange-red patch from below costa to vein 1, above which it is somewhat interrupted and expanding below costa. Hind wing bright yellow, the apical area black, narrowing to a point at vein 1 and with its inner edge sinuous.

♀. Fore wing with the yellow extending to costa, the black not extending so far towards base on costal area; the subterminal patch larger and more orange.

Hab. NIAS, 1 ♂, 1 ♀ type; JAVA. *Exp.* 30 millim.

596. *Scaptosyle mirabilis*, n. sp. (Plate XXVI. fig. 15.)

♂. Head, thorax, and abdomen black; tegulæ and patagia except at extremities bright yellow; palpi white below; tibiæ and tarsi with white patches; genital tufts white; wings bright sulphur-yellow. Fore wing with the base and costal edge black: a broad black terminal band expanding on costa to above end of cell, its inner edge minutely waved below vein 6 and with a bright vermilion-red band on it shaped like the black band. Hind wing with apical black patch.

Hab. BORNEO, Kina Balu (*Waterstradt*), 1 ♂ type. *Exp.* 24 millim.

597. *Scaptosyle bicolor*.

Scaptosyle bicolor, Wlk. xxxi. 182 (1864); Moore, Lep. Ceyl. ii. p. 42, pl. 96. f. 2; Hmps. Moths Ind. ii. p. 105; Kirby, Cat. Het. p. 293.

Dichromia nietneri, Feld. Reis. Nov. pl. 106. f. 25.

Head, thorax, and abdomen deep black; palpi white at tips; tegulae and patagia bright orange-yellow; legs with patches of white; genital tufts white. Fore wing bright orange-yellow; the base black; the terminal third blue-black, its inner edge angled outwards at upper angle of cell. Hind wing bright orange-yellow; the terminal area black from middle of costa to tornus.

Hab. CEYLON (*Green*), 2 ♂, 7 ♀, type. *Exp.* 32 millim.

Subsp. 1. *integra*, Swinh. A. M. N. H. (6) xiv. p. 437 (1894).

Yellow; both wings with the terminal black areas considerably narrower.

Hab. ASSAM, Khâsis, 1 ♂, 1 ♀ type; BORNEO, 1 ♂; PULO LAUT (*Doherty*), 1 ♀. *Exp.* 26–30 millim.

598. *Scaptosyle aurigena*. (Plate XXVI. fig. 19.)

Tospitis aurigena, Wlk. xxviii. 428 (1863); Kirby, Cat. Het. p. 365.

Pitane biplaga, Feld. Reis. Nov. pl. 139. f. 5 (1875); Kirby, Cat. Het. p. 301.

♂. Head, tegulae, and base of patagia golden yellow; thorax purple; pectus, legs, and abdomen ochreous whitish. Fore wing golden yellow; a blue-edged purple basal patch with obliquely-curved outer edge; a similar subterminal patch rounded to costa. Hind wing whitish, tinged with brown towards apex.

♀. Fore wing with the patch on terminal area extending to termen; hind wing with terminal brown band.

Hab. BORNEO, Sarawak (*Wallace*), 6 ♂, 1 ♀ type. *Exp.* 20 millim. Type † *biplaga* in Coll. Rothschild.

*599. *Scaptosyle æquidistans*. (Plate XXVI. fig. 30.)

Comarchis æquidistans, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1080 (1890); Kirby, Cat. Het. p. 296.

♀. Orange-yellow; palpi, antennæ, and legs black; patagia and thorax with black patches; abdomen with the dorsum black except at base and extremity, the ventral surface with black bands. Fore wing with subbasal black band; antemedial and medial bands closely approximated towards costa, the former with somewhat sinuous edges; a postmedial band strongly excurved below lower angle of cell; a subterminal band expanding to termen at apex, middle and tornus. Hind wing with terminal fuscous band expanding towards costa, and on underside resolved into a subterminal line and terminal band.

Hab. QUEENSLAND, Brisbane, Coll. Turner. *Exp.* 30 millim.

*600. *Scaptosyle dictyota*. (Plate XXVI. fig. 21.)

Chiriphe dictyota, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 735 (1886); Kirby, Cat. Het. p. 348.

♂. Head and thorax yellowish white; palpi, antennæ, patagia, and metathorax black; abdomen ochreous suffused with fuscous. Fore wing yellowish white; a black fascia on basal third of costa, emitting a short bar at base and a tooth at its extremity; the antemedial band erect from cell to inner margin, bent outwards to costa to the postmedial line which is acutely angled inwards to meet it, then outwards on vein 6 and somewhat oblique from cell to inner margin; a subterminal line excurved to apex and somewhat angled inwards on vein 1; a terminal band from apex to vein 3. Hind wing fuscous brown.

Hab. QUEENSLAND, Toowoomba, type † ♂ in Coll. Meyrick. *Exp.* 16 millim.

601. *Scaptosyle monogrammaria*. (Plate XXVI. fig. 22.)

Chiriphe monogrammaria, Wlk. xxvi. 1692 (1862); Kirby, Cat. Het. p. 348.

Head and tegulæ blackish, sometimes greyish; thorax and abdomen blackish; anal tuft greyish; wings red-brown. Fore wing with erect slightly waved whitish postmedial line; the cilia whitish at tips.

Hab. N. S. WALES, Moreton Bay, 1 ♂, Sydney (*Diggles*) 1 ♀ type, (*Raynor*) 2 ♂, 5 ♀. *Exp.* 18 millim.

Genus **CAPRIMA**.

Caprima, Wlk. xxxi. 128 (1864) Type. *gelida*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male ciliated; tibiae with the spurs moderate. Fore wing with vein 2 from beyond middle of cell; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from below angle of discocellulars; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing with veins 10, 11 from a point or shortly stalked in male.

- A. Medial area of fore and hind wings white *gelida*.
- B. Medial area of fore and hind wings yellow.
 - a. Tegulæ yellow *calida*.
 - b. Tegulæ blue-black.
 - a¹. Fore wing with the medial yellow band not reaching costa *mixta*.
 - b¹. Fore wing with the medial yellow band reaching costa *cærulescens*.

602. *Caprima gelida*.

Caprima gelida, Wlk. xxxi. 129 (1864); Swinh. Cat. Het. Mus. Oxon. p. 61, pl. ii. f. 3; Kirby, Cat. Het. p. 59.

Hypocrita albicollis, Pag. Jahrb. Nass. xxxix. p. 125 (1886); Kirby, Cat. Het. p. 293.

Head and thorax blue-black; tegulæ white; fore legs white in front, mid and hind legs banded with white; abdomen black. Fore wing blue-black; a broad medial white band from subcostal nervure



Fig. 203.—*Caprima gelida*, ♂. 1.

to inner margin, rounded above and somewhat constricted at vein 1; a subterminal cupreous-red band from below costa to above inner margin, very broad and rounded towards costa. Hind wing black, with medial white band very broad towards costa, narrowing towards inner margin.

Hab. MYSol, type in Mus. Oxon.; WAIGIOU; ARU; N. GUINEA; TROBRIAND Is., Kirwini (*Meek*), 1 ♂, 1 ♀. *Exp.* 32–38 millim.

603. *Caprima calida*.

Scaptosyle calida, Wlk. xxxi. 182 (1864); Kirby, Cat. Het. p. 293.

Hypocrita flavicollis, Snell. Tijds. v. Ent. xxii. p. 89, pl. 7. f. 12 (1879); Kirby, Cat. Het. p. 293.

Head, thorax, and abdomen black; tegulæ bright yellow; fore tibiae in front and 1st joint of tarsi white; mid and hind legs striped with white; abdomen with the anal tuft whitish. Fore wing black; a large bright yellow patch from near base to well beyond middle extending from inner margin to near costa, its upper edge rounded, its outer edge angled at vein 6 and in submedian fold; a large cupreous-red subterminal patch from below costa to vein 1, expanding towards costa. Hind wing bright yellow; the inner area black; a broad terminal black band expanding towards costa and with sinuous inner edge.

Hab. CELEBES; AMBOINA, 1 ♀; CERAM, 1 ♀ type. *Exp.* 28 millim.

Subsp. 1. Fore wing with the black at base and hind wing with the black at base and on inner area much wider, the yellow band being much reduced.

Hab. N. GUINEA, Milne Bay, 1 ♀.

*604. *Caprima mixta*. (Plate XXVI. fig. 16.)

Scaptosyle callida, Swinh. Cat. Het. Mus. Oxon. p. 98 (1892), nec Wlk.

♀. Head, thorax, and abdomen black; tegulæ and patagia shot with blue; fore tibiae and 1st joint of tarsi white in front; mid and

hind legs banded with white; anal tuft whitish. Fore wing black; a large bright yellow patch from before middle to well beyond middle, extending to near costa, its outer edge angled at vein 6 and in submedian fold; a large subterminal cupreous-red patch from below costa to vein 1 expanding towards costa. Hind wing black, with large bright yellow medial patch, its inner edge running obliquely from costa near base to vein 1, its outer edge obtusely angled at vein 4.

Hab. MYSEL (Wallace), 1 ♀ type † in Mus. Oxon. *Exp.* 28 millim.

The colour of the tegulæ at once settles that the specimen from Ceram in B. M. is Walker's type of *calida*.

*605. *Caprima ? cærulescens*.

Scaptosyle cærulescens, Butl. Trans. Ent. Soc. 1889, p. 390, pl. xii. f. 3; Kirby, Cat. Het. p. 293.

♀. Head, thorax, and abdomen black shot with brilliant blue; fore tibiæ and tarsi mostly white in front; extremity of hind femora white; abdomen with the anal segment dotted and tipped with white below. Fore wing with the basal area black shot with brilliant blue; a medial yellow band, narrowing to costa, its outer edge being oblique from costa to lower angle of cell; the terminal area black, with large orange-red patch leaving rather narrow black margins. Hind wing black, with large triangular medial yellow patch from costa to above tornus.

Hab. SOLOMON Is., Guadalcanar (Woodford). *Exp.* 30 millim. This species is unknown to me.

SECT. II. Fore wing with veins 10, 11 widely separated in both sexes.

- A. Fore wing with white patches and bands.
 - a. Hind wing orange, with terminal brown band *procrena*.
 - b. Hind wing uniform red-brown *catarrhoa*.
- B. Fore wing without white markings.
 - a. Fore wing with the basal half yellowish, the terminal half fuscous *bipars*.
 - b. Fore wing reddish brown, with obscure medial fuscous band *rotunda*.

606. *Caprima procrena*. (Plate XXVI. fig. 4.)

Chiriphe procrena, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 733 (1886); Kirby, Cat. Het. p. 348.

♂. Head white; palpi, frons, and antennæ blackish; thorax black-brown, with white patches on pro- and metathorax; legs brown and yellowish; abdomen fuscous, the anal tuft ochreous. Fore wing dark reddish brown; a white basal patch with a dark point on it from subcostal nervure to vein 1, conjoined to an oblique antemedial striga from costa and an oblique band from middle of costa with dentate outer edge; a very irregular oblique white

postmedial band dentate inwards in discal and submedian folds, with a dark point on it between these points and lunulate above inner margin; a terminal series of white points. Hind wing orange-yellow, with broad terminal rufous band.

Hab. VICTORIA, Melbourne (*Lucas*), 1 ♂; TASMANIA, Deloraine, type † ♂ in Coll. Meyrick. *Exp.* 18 millim.

*607. *Caprima catarrhoa*.

Chiriphe catarrhoa, Meyr. P. Linn. Soc. N.S.W. (2) i. p. 733 (1886); Kirby, Cat. Het. p. 348.

♂. Head grey; palpi and antennæ blackish; thorax and abdomen dark brown mixed with grey, the anal tuft ochreous. Fore wing dark brown, irrorated with grey; an antemedial white band with diffused inner edge and sharply defined dentate outer edge; a postmedial dentate white line, oblique towards costa, angled inwards in cell and submedian fold and bent outwards to inner



Fig. 204.—*Caprima catarrhoa*, ♂. $\frac{1}{2}$.

margin; the termen strongly suffused with grey; cilia chequered brown and white. Hind wing red-brown, the cilia whitish at tips.

Hab. W. AUSTRALIA, Albany, type † in Coll. Meyrick. *Exp.* 18 millim.

608. *Caprima bipars*, n. sp. (Plate XXVI. fig. 20.)

♂. Head, thorax, and abdomen fuscous black. Fore wing with the basal half yellowish white, the terminal half fuscous black; the base itself fuscous black; an orange fascia on costa; the termen and cilia orange, with a yellowish-white line between it and the fuscous area. Hind wing fuscous, the basal area yellowish, with oblique outer edge; cilia orange at apex.

Hab. SOLOMONS, Guadalcanar (*Woodford*), 1 ♂ type. *Exp.* 18 millim.

609. *Caprima rotunda*, n. sp. (Plate XXVI. fig. 26.)

♂. Head and thorax reddish brown; abdomen fuscous black, the anal tuft ochreous. Fore wing with the costa highly arched; dull reddish brown, becoming yellowish at costa; an obscure medial fuscous band from below costa to inner margin; cilia yellowish. Hind wing fuscous black.

Hab. LOUISIADES, Rossel I. (*Meek*), 1 ♂ type. *Exp.* 16 millim.

Genus **UTRICULIFERA.**

Utriculifera, Hmps. Ill. Het. ix. p. 81 (1893)..... Type. *fuscapex*.

Proboscis fully developed; palpi porrect, reaching just beyond the frontal tuft; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing short and rather broad; vein 2 from middle of cell, somewhat curved at base; 3 and 5 from close to angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, oblique. Hind wing with vein 2 from near angle of cell; 3, 4 coincident; 5 from above angle; 6, 7 stalked; 8 from towards end of cell.

SECT. I. Antennæ of male with a very large hollowed-out vesicle at extremity of basal joint; abdomen with large lateral tufts of hair from 3rd segment; fore wing with a fold at base of inner margin containing tufts of hair.

610. *Utriculifera fuscapex*.

Utriculifera fuscapex, Hmps. Ill. Het. ix. p. 82, pl. 158. ff. 7, 17 (1893); id. Moths Ind. ii. p. 95.

Grey-brown; abdomen fuscous, the lateral tufts of male and anal tuft paler; the vesicle on antennæ black; the frons ochreous. Fore wing with the basal area suffused with brown; the costal edge dark towards base; faint traces of a curved antemedial line; two points on discocellulars; a triangular apical blackish patch extending to middle of termen. Hind wing fuscous.

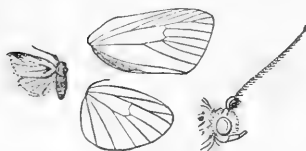


Fig. 205.

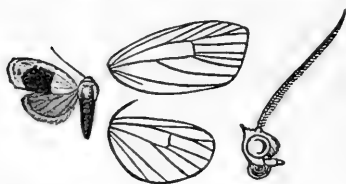
Utriculifera fuscapex, ♂. ♀.
(From Moths Ind. vol. ii.)

Hab. BELGAUM (Watson), 1 ♀; CEYLON, Nawalapittya (Green), 2 ♂, 1 ♀ type; LOUISIADES, Rossel I. (Meek), 1 ♂. *Exp.* 16 millim.

SECT. II. Male with the antennæ, abdomen, and fore wing normal.

611. *Utriculifera macroplaga*, n. sp.

♂. Head and thorax yellowish white; frons and abdomen above black. Fore wing yellowish white; subbasal, antemedial, and postmedial black points on costa; a large fuscous postmedial patch from subcostal nervure to inner margin, its inner edge straight, its outer rounded; some black points on costa towards apex and on termen below

Fig. 206.—*Utriculifera macroplaga*, ♂. ♀.

apex. Hind wing and underside of fore wing fuscous.

Hab. PULO LAUT (Doherty), 2 ♂, type. *Exp.* 12 millim.

Genus **SICULIFER**.

Type.

Siculifer, Hmps. Moths Ind. iv. p. 497 (1896) *bilineatus*.

Proboscis fully developed; palpi obliquely upturned, not nearly reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs long. Fore wing with the costa strongly arched towards apex, which is very much produced and hooked; vein 2 from rather beyond middle of cell, curved at base; 3 from well before angle; 5 absent; 6, 7, 8, 9, 10 stalked, 7 from beyond 9; 11 free. Hind wing with vein 2 from towards end of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell; the inner margin of male with fold and fringe of rough hair on underside.

612. *Siculifer bilineatus*.*Siculifer bilineatus*, Hmps. Moths Ind. iv. p. 497 (1896).

♂. Head and thorax red-brown; abdomen fuscous, the anal tuft ochreous. Fore wing red-brown; a fine slightly curved and oblique fuscous medial line, the area from it to termen except above vein 6 yellowish; a postmedial line oblique from costa to vein 6, where it is slightly angled, then erect; the costa towards apex and cilia blackish. Hind wing fuscous towards termen; the cilia fuscous from apex to vein 2.

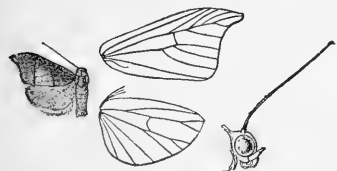


Fig. 207.—*Siculifer bilineatus*, ♂. $\frac{1}{2}$.
(From Moths Ind. vol. iv.)

♀. Hind wing pale fuscous.

Hab. ASSAM, KHÁSIS, 1 ♂, 1 ♀. *Exp.* 20 millim. Type † in Coll. Elwes.

Genus **TORTRICOSIA**, nov.Type, *T. excisa*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male ciliated; tibiæ with the spurs long. Fore wing with the costa strongly lobed near base, excised at middle, lobed beyond middle and excised at apex; the termen excised towards apex and strongly excurved at middle; vein 2 from middle of cell, somewhat curved at base; 3 from near angle; 4, 5 stalked; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from towards angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

613. *Tortricosia excisa*, n. sp.

Head and thorax grey-white, irrorated with black; abdomen fuscous black, the anal tuft ochreous. Fore wing grey-white, irrorated with dark red-brown; subbasal, ante-medial, medial, postmedial, and subterminal small black spots on costa; indistinct ante- and post-medial punctiform lines, the former excurved from below costa to submedian fold, the latter waved and with stronger irroration on its inner side

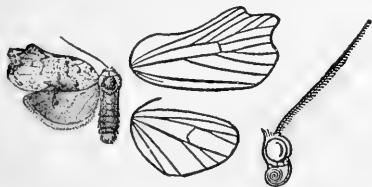


Fig. 208.—*Tortricosia excisa*, ♂. $\frac{2}{3}$.

on inner margin; an apical patch of dark red-brown suffusion; cilia black at middle, red-brown and ochreous towards apex, white towards tornus. Hind wing fuscous brown; cilia whitish from middle to tornus.

Hab. BURMA, Mergui (*Doherty*), 1 ♂ type; PERAK, Padang Rengas (*Doherty*), 1 ♀. *Exp.* 20 millim.

Genus OXACME.

Oxacme, Hmps. Moths Ind. ii. p. 94 (1894) Type. *dissimilis*.

Proboscis well developed; palpi porrect, not reaching beyond the frons; antennæ of female ciliated; tibiæ with the spurs long. Fore wing long and narrow, the costa excised towards apex, which is produced and acute; the termen produced to a point at middle and excised above and below that point; vein 2 from middle of cell, curved at base; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 from cell. Hind wing with vein 2 from well beyond middle of cell; 3, 4 coincident; 5 from above angle; 6, 7 on a long stalk; 8 from middle of cell.

A. Wings white *marginata*.
B. Wings fuscous *dissimilis*.

614. *Oxacme marginata*. (Plate XXVI. fig. 27.)

Oxacme marginata, Hmps. Moths Ind. iv. p. 496 (1896).

♂. Head and thorax brownish white, irrorated with fuscous; abdomen fuscous, the anal tuft and ventral surface ochreous brown. Fore wing white, irrorated with fuscous; the base tinged with brown; the costa streaked with black towards base; a black point on discocellulars and traces of a curved postmedial series; a slight black streak on costa towards apex and strigæ on termen above and below middle. Hind wing white, some fuscous on termen; cilia fuscous, with a pale line at base.

Hab. ASSAM, Khâsis, 2 ♂; BURMA, Mergui (*Doherty*), 1 ♂. *Exp.* 18 millim. Type † in Coll. Elwes.

615. *Oxacme dissimilis*.

Oxacme dissimilis, Hmps. Moths Ind. ii. p. 94 (1894).

Pale grey-brown; frons blackish; abdomen with the anal tuft yellowish. Fore wing with three

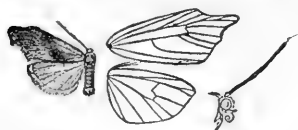


Fig. 209.—*Oxacme dissimilis*, ♀. 1.
(From Moths Ind. vol. ii.)

slight antemedial dark points on the veins; a diffused fuscous medial band; a postmedial series of dark points excurved beyond cell; some blackish points on excised part of costa and termen; cilia white at tips. Hind wing pale greyish, with dark discal point; some fuscous suffusion towards apex; a dark line through cilia.

Hab. SIKHIM, 2800 feet (*Pilcher*), 1 ♂, 1 ♀ type † (*Möller*) in Coll. Elwes. *Exp.* 22 millim.

Genus **COSTARCHA.**

Type.

Costarcha, Hampsn. Ill. Het. viii. p. 53 (1891) *indistincta*.

Proboscis fully developed; palpi upturned, short, and not nearly reaching vertex of head; antennæ bipectinate, the branches fine and at right angles to shaft; tibiæ with the spurs long. Fore wing thinly scaled; the costa arched at base and towards apex; the cell long; vein 2 from just beyond middle; 3 from long before angle; 5 from just above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from towards end of cell; 3, 4 coincident; 5 from angle; 6, 7 stalked; 8 from middle of cell.

616. *Costarcha indistincta*.

Costarcha indistincta, Hampsn. Ill. Het. viii. p. 53, pl. 140. f. 22 (1891);
id. Moths Ind. ii. p. 94; Kirby, Cat. Het. p. 362.

♂. Grey tinged with pale brown; head and extremity of abdomen tinged with fuscous. Fore wing irrorated with fuscous; the costal



Fig. 210.—*Costarcha indistincta*, ♂. 1.
(From Moths Ind. vol. ii.)

edge black towards base; oblique indistinct subbasal and antemedial lines from costa to median nervure, where the latter is strongly angled, then reduced to an oblique series of points; an indistinct dark mark on middle of costa; indistinct postmedial and sub-

terminal series of points angled beyond the cell, then oblique; a fuscous patch on costa towards apex and terminal series of points. Hind wing paler.

Hab. NILGIRIS (*Hampson*), 2 ♂, type. *Exp.* 28 millim.

Genus **STICTOSIA**, nov.

Type, *S. flexilisana*.

Proboscis fully developed; palpi slender, porrect, extending to just beyond the frons; antennæ of male ciliated; tibiæ with the spurs long. Fore wing short and broad, the costa arched; vein 2 from towards angle of cell; 3 from close to angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from towards angle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 coincident in male, on a long stalk in female; 8 from beyond middle of cell, with a small patch of androconia on it in male, and the subcostal nervure bent downwards towards angle of cell.

617. *Stictosia flexilisana*.

Conchylis flexilisana, Wlk. xxviii. 362 (1863), ♂.

Tospitis decubitana, Wlk. xxviii. 431 (1863); Kirby, Cat. Het. p. 335.

Tospitis illatalis, Wlk. xxx. 994 (1864), ♀.

♂. Head and thorax ochreous, irrorated with dark scales; abdomen pale, the extremity ochreous. Fore wing yellow-brown, irrorated with black scales; a black point on subcostal nervure

before middle and a small tuft of black scales at lower angle of

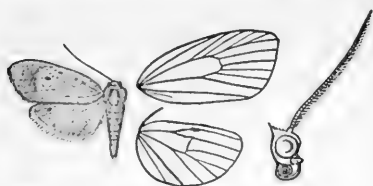


Fig. 211.—*Stictosia flexilisana*, ♂. ♀.

cell; faint traces of an ante-medial line oblique from costa to median nervure, then erect; an indistinct post-medial line oblique from costa to vein 6, then erect and ending at tornus. Hind wing whitish, slightly tinged with fuscous, the termen and cilia ochreous.

♀. Hind wing fuscous, the cilia ochreous.

Hab. BORNEO, Sarawak (*Wallace*), 2 ♂, 2 ♀, type and types *decubitana* and *illatalis*; Pulo Laut (*Doherty*), 1 ♀. *Exp.* 14 millim.

Genus PRONOLA, nov.

Type, *P. magniplaga*.

Proboscis fully developed; palpi short, upturned, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs long. Fore wing short and broad, the costa highly arched; vein 2 from beyond middle of cell, strongly curved; 3 from well before angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10 stalked, 7 from beyond 9; 11 free; male with the subcostal nervure highly arched, a patch of downturned scales in end of cell on underside and a sparse fringe of long hair on basal half of vein 2. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 from just above angle; 6, 7 coincident, the subcostal nervure bent upwards and 8 from towards end of cell; a patch of androconia on upperside in end of cell.

- | | |
|---|---------------------|
| A. Fore wing with the upper edge of dark patch evenly curved | <i>magniplaga</i> . |
| B. Fore wing with the upper edge of dark patch deeply excised in cell | <i>diffusa</i> (♀). |

618. *Pronola magniplaga*.

Pronola magniplaga, Schaus, J. N. Y. Ent. Soc. vii. p. 214 (1899).

♂. Head and thorax orange-yellow; abdomen reddish brown,

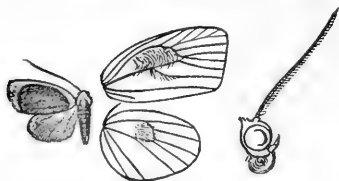


Fig. 212.—*Pronola magniplaga*, ♂. ♀.

the anal tuft ochreous. Fore wing pinkish brown; the base, a costal fascia, and the terminal band yellow, wide at apex, narrowing to a point at tornus, the brown area shading to purplish towards the yellow. Hind wing pale red-brown, the costal half pale yellow.

♀. Fore wing with the apical yellow area rather larger; hind wing dark fuscous, with the costa and termen towards apex yellow.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♂; BOLIVIA, Chaco (*Garlepp*), 1 ♀. *Exp.* 20 millim. Type † in Coll. Schaus.

*619. *Pronola diffusa*. (Plate XXVI. fig. 5.)*Pronola diffusa*, Schaus, J. N. Y. Ent. Soc. vii, p. 214 (1899).

♀. Pale yellow; anal tuft whitish. Fore wing with pale fuscous patch on inner area from before middle to tornus, its inner edge angled below the cell, emitting a spur across middle of cell to subcostal nervure and expanding into a large patch in and beyond end of cell, with a yellow discoidal point on it, and not quite reaching costa or termen.

Hab. PERU, 1 ♀ type † in Coll. Schaus. *Exp.* 18 millim.

Genus *EUGONOSIA*, nov.

Type, *E. angulifer*.

Proboscis and palpi minute; antennæ of female annulate; tibiæ with the spurs moderate. Fore wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from above angle; 6, 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, oblique. Hind wing with vein 2 from well before end of cell; 3, 4 stalked; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

*620. *Eugonosia angulifer*.*Eugonosia angulifer*, Schaus, J. N. Y. Ent. Soc. vii, p. 214 (1899).

♀. Head and thorax orange tinged with pink; antennæ fuscous, with white rings; abdomen pink. Fore wing orange, tinged with pink; the costa and inner margin with narrow black fasciæ; strong black lines from discocellulars at vein 5 to inner margin before middle and to termen at vein 2, forming a

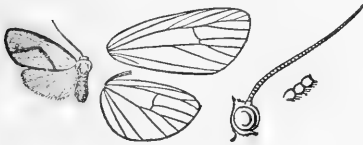


Fig. 213.—*Eugonosia angulifer*, ♀. 1.

right angle connected with costa by a slight shade; cilia black. Hind wing pink, the cilia orange.

Hab. BRAZIL, Castro Paraña (*Jones*), 1 ♀ type † in Coll. Schaus. *Exp.* 24 millim.

Genus *RHODOGRAPHIA*, nov.

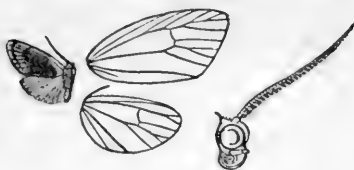
Type, *R. phæoplaga*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from towards end of cell; 3, 4 stalked; 5 from above angle; 6, 7, 8, 9 stalked, 7 from beyond 9; 10, 11 from cell, oblique. Hind wing with vein 2 from towards end of cell; 3, 4 on a long stalk; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

*621. *Rhodographa phæoplaga*.*Rhodographa phæoplaga*, Schaus, J. N. Y. Ent. Soc. vii, p. 215 (1899).

♂. Orange-yellow; head and thorax largely marked with crimson

Fore wing with slight crimson marks at base; a large fuscous-brown patch edged with crimson, extending on inner margin from near base to tornus, its upper edge curved to below costa beyond the cell and emitting a hook at middle of cell, its outer edge excised below vein 3; an ill-defined punctiform subterminal crimson



† Fig. 214.

Rhodographa phaeoplaga, ♂. $\frac{1}{2}$.

line. Hind wing suffused with crimson.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♂ type in Coll. Schaus; BOLIVIA, Songo (*Garlepp*). *Eap.* 18 millim.

Genus CHIONÆMA.

	Type.
<i>Chionæma</i> , Herr.-Schäff. Aussereur. Schmett. p. 20 (1850) ...	<i>puella</i> .
<i>Cyana</i> , Wlk. ii. 528 (1854)	<i>detrita</i> .
<i>Dolichæ</i> , Wlk. ii. 529 (1854)	<i>gelida</i> .
<i>Isine</i> , Wlk. ii. 545 (1854)	<i>trigutta</i> .
<i>Bizone</i> , Wlk. ii. 548 (1854)	<i>perornata</i> .
<i>Clerckia</i> , Auriv. Vet.-Akad. Svensk. Handl. xix. (5) p. 157 (1882)	<i>fulvia</i> .
<i>Exotrocha</i> , Meyr. P. Linn. Soc. N. S. W. (2) i. p. 693 (1886) ...	<i>fulvia</i> .
<i>Sphragidium</i> , Butl. A. M. N. H. (5) xix. p. 218 (1887)	<i>miles</i> .
<i>Gnophrioides</i> , Heyl. C.R. Soc. Ent. Belge, xxxv. p. 412 (1891) .	<i>flaviplaga</i> .
<i>Macronola</i> , Kirby, Cat. Het. p. 299 (1893)	<i>detrita</i> .

Proboscis fully developed; palpi rarely upturned, usually porrect, projecting to just beyond or hardly as far as frons, which is rounded and somewhat prominent; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell, curved towards base; 3 usually from before angle; 5 in male from just below angle of discocellulars; 6 from or from below angle of cell or stalked with 7; 8, 9 usually absent in male, 9 and rarely 8 from 7 in female; 10, 11 free; male with a fringe of hair from middle of costa on upperside and lobe on underside, much distorting the venuration. Hind wing with vein 2 from well before angle of cell; 3, 4 on a long stalk, rarely coincident; 5 obsolescent from just below middle of discocellulars; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing of female with veins 4, 5 stalked.

A. Hind wing of male with a large elliptical patch of brown androconia on upperside below middle of costa, which is highly arched; fore wing with elongate patch of androconia in end of cell on underside, the fringe on costa well developed, the lobe large and single; female with vein 6 stalked with 7, 8.

- a. Fore wing with black edges to the ante- and postmedial lines *peregrina*.
- b. Fore wing without black edges to the ante- and postmedial lines *catorhoda*.

622. *Chionæma peregrina*.

Bizone peregrina, Wlk. ii. 551 (1854); Hmps. Moths Ind. ii. p. 56; Kirby, Cat. Het. p. 301.

Bizone puella, Moore, Lep. Ceyl. ii. p. 60, pl. 103. ff. 3, 3a (nec Drury).

♂. White; palpi and lower part of frons scarlet; tegulæ edged

with scarlet; scarlet bands across thorax and patagia and on meta-thorax; legs scarlet, the fore coxæ, mid femora, and hind tibiæ and femora white; abdomen tinged with scarlet above except towards base. Fore wing with subbasal scarlet line expanding at costa; an antemedial line bent inwards to costa and slightly edged by black on inner side; a postmedial line slightly edged by black on outer side and bent inwards above

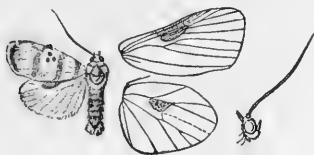


Fig. 215.

Chionæma peregrina, ♂. $\frac{1}{2}$.
(From *Moths Ind.* vol. ii.)

vein 3; a black spot in upper angle of cell and two on discocellulars, and a browish mark beyond the postmedial line below the costa; a terminal scarlet band running round the apex to the postmedial line. Hind wing with the inner area and termen tinged with scarlet.

♀. Fore wing with one black spot at end of cell; the black edges to the ante- and postmedial lines prominent, the latter oblique throughout, the terminal line only running just round the apex. Hind wing pale crimson, with the cilia white. Underside of fore wing pale crimson.

Ab. 1. Fore wing with the scarlet markings much broader, the black edges strongly marked.—Pirmád.

Hab. CUTTACK, Moore Coll., 1 ♀; NILGIRIS (*Hampson*), 2 ♀; COIMBATORE (*Walhouse*), 1 ♀; TRAVANCORE, Pirmád, 1 ♀; CEYLON (*Nietner*), 1 ♂ 1 ♀, (*Templeton*) 1 ♀ type, (*Green*) 3 ♂ 2 ♀. *Exp.*, ♂ 28, ♀ 32 millim.

The larva forms a cocoon of very open network.

623. *Chionæma catorhoda*. (Plate XXVI. fig. 2.)

Cyana catorhoda, Hmps. Journ. Bomb. Nat. Hist. Soc. xi. p. 296 (1897).

♂. White; palpi and lower part of frons scarlet; tegulæ edged with scarlet; scarlet bands across thorax and patagia and on meta-thorax; legs scarlet and white; abdomen dorsally tinged with scarlet except towards base. Fore wing with scarlet subbasal line expanding at costa; ante- and postmedial lines slightly bent inwards to costa; a black spot in upper end of cell and two on discocellulars, and a slight brownish mark beyond the postmedial line below costa; a terminal scarlet band running round the apex to the postmedial line. Hind wing pale crimson, with the costal area and cilia white.

♀. Fore wing with one black spot; the terminal band not running round the apex. Hind wing with the costal area crimson.

Hab. ASSAM, Khásis, 1 ♂, 2 ♀, type; BURMA, Hsipaw (*De Nicéville*), 1 ♀. *Exp.* 26 millim.

B. Hind wing of male without patch of androconia.

a. Fore wing with the fringe on costa well developed, the lobe large and single.

a¹. Fore wing of female with vein 6 stalked with 7, 8; 9 absent.

a². Palpi upturned, not reaching vertex of head.

*624. *Chionæma rubrifasciata*.

Bizone rubrifasciata, Druce, Ent. M. Mag. xx. p. 156 (1883); Waterh. Aid. ii. pl. 172. f. 1; Kirby, Cat. Het. p. 301.

♀. Head white; palpi tinged with pale red and fuscous; antennæ pale red; tegulæ, patagia, and thorax brick-red; pectus and coxæ red; legs brown and white; abdomen fuscous brown, yellowish white below. Fore wing white; the base brick-red, with black point and black edge; broad ante- and postmedial brick-red bands edged by slightly curved black lines, the outer band slightly expanding below vein 2; a black discoidal spot; a red patch on termen extending down to vein 1, its inner side strongly angled inwards below costa and bordered by a black line, which is minutely dentate below the angle. Hind wing fuscous, with the cilia white.

Hab. N. CELEBES (*Curtis*), 1 ♀ type † in Coll. Druce. *Exp.* 52 millim.

b². Palpi porrect.

a³. Fore wing with the spots in end of cell black.

a⁴. Fore wing with black edges to the ante- and post-medial lines *puella*.

b⁴. Fore wing without black edges to the ante- and postmedial lines.

a⁵. Fore wing with the postmedial line nearly erect. *alborosea*.

b⁵. Fore wing with the postmedial line extremely oblique *obliquilineata*.

b³. Fore wing with the spots in end of cell edged with red, the spot at lower angle on a short red striga... *ridleyi*.

b³. Fore wing with the spots at end of cell red *amabilis*.

625. *Chionæma puella*.

Deiopeia puella, Drury, Ill. Ex. Ent. ii. pl. 2. f. 2 (1773); Hmps. Moths Ind. ii. p. 57; Kirby, Cat. Het. p. 302.

♂. White; palpi, antennæ, a border to tegulæ, a band across thorax and patagia, and spot on metathorax scarlet; legs scarlet and white; abdomen dorsally tinged with crimson except towards base. Fore wing with scarlet sub-basal band expanding into a streak on costa; an ante-medial band with a fine black line on its inner edge and strongly excurved below costa; a sinuous and incurved postmedial band with fine black line on its outer side; a black spot in end of cell, two on discocellulars, and a short black

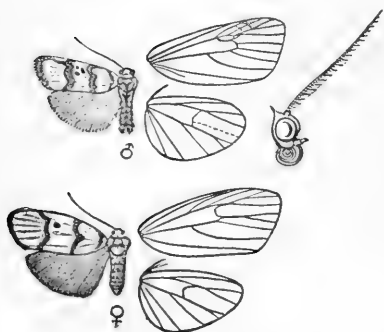


Fig. 216. — *Chionæma puella*. ♂.

or scarlet streak beyond the postmedial line below the costa;

a terminal band running round the apex to the postmedial band. Hind wing pale crimson.

♀. Fore wing with one discoidal black spot; the terminal band not running round the apex.

Hab. N.W. HIMALAYAS, Simla, Dalhousie (*Harford*), 1 ♂, 3 ♀, Kangra (*Hocking*), 4 ♂, 3 ♀, Umballa, 1 ♂, 1 ♀; NEPAL (*Hardwicke*), 1 ♂, 1 ♀; BOMBAY; NILGIRIS (*Hampson*), 2 ♀; CEYLON. *Exp.*, ♂ 28, ♀ 32–36 millim.

626. *Chionæma alborosea*.

Lithosia alborosea, Wlk. xxxi. 230 (1864); Hmps. Moths Ind. ii. p. 56, & iv. p. 492; Kirby, Cat. Het. p. 302.

Bizone quadrinotata, Wlk. Char. Lep. Het. p. 90 (1869); Kirby, Cat. Het. p. 302.

Bizone pallens, Butl. Trans. Ent. Soc. 1877, p. 338; id. Ill. Het. v. p. 36, pl. 86. f. 7; Kirby, Cat. Het. p. 302.

Cyana dudgeoni, Hmps. Trans. Ent. Soc. 1895, p. 293 (♀).

♂. White; palpi brown; tegulæ edged with scarlet; a scarlet band across thorax and patagia; legs brown and white; abdomen slightly tinged with crimson on dorsum. Fore wing with subbasal scarlet band expanding at costa; an antemedial scarlet line obtusely angled outwards below costa; the postmedial line oblique and somewhat wider on inner half of wing; a black spot in end of cell and two on discocellulars; a short yellow streak beyond the postmedial line below the costa; a terminal scarlet band with slightly waved inner edge running just round the apex and not reaching tornus. Hind wing pale crimson; the cilia white.

Ab. 1. *quadrinotata*. Fore wing with the streak beyond the postmedial line black; hind wing in the Hongkong specimen white towards base.

Ab. 2. Hind wing pure white.—Java.

♀. Fore wing with one discoidal black spot.

Hab. HONGKONG (*J. J. Walker*), 1 ♂, (*Bowring*) 2 ♀; SIKHIM (*Strachey*), 1 ♀ type, (*Lidderdale*) 1 ♂, (*Dudgeon*) 1 ♀, type *dudgeoni* (♀); BHUTÁN (*Dudgeon*), 1 ♂, 1 ♀; ASSAM, KHÁSIS, 1 ♂, 1 ♀; BURMA, Moulmein (*Clerk*), 1 ♀, type *pallens*; JAVA, 1 ♀. *Exp.*, ♂ 26, ♀ 30 millim.

627. *Chionæma obliquilineata*, n. sp. (Plate XXVI. fig. 24.)

♂. White; palpi brown at tips; antennæ crimson; tegulæ edged with crimson; crimson bands across tegulæ and patagia and on metathorax; abdomen dorsally tinged with crimson except towards base. Fore wing with rather irregular antemedial scarlet line not reaching inner margin; very oblique ante- and postmedial lines; a black spot in end of cell and two on discocellulars; a diffused fuscous patch below costa towards apex; a nearly terminal scarlet band bent inwards below the apex to a point on costa above the fuscous patch; the apex somewhat produced upwards. Hind wing pale crimson, the costal area and cilia white.

Hab. SIKHIM, 1800 feet (*Dudgeon*), 1 ♂ type. *Exp.* 32 millim.

628. *Chionæma ridleyi*, n. sp. (Plate XXXIV. fig. 14.)

♂. White; palpi tinged with crimson; tegulæ and patagia edged with crimson; metathorax and legs with crimson bands; abdomen tinged with crimson. Fore wing with the costal edge crimson to the antemedial band; a subbasal line not reaching inner margin; the antemedial band moderately broad and slightly bent inwards to costa; small black spots in end of cell and at angles, the two upper slightly edged by crimson scales, the lower on a short crimson striga; a moderately broad incurved postmedial band expanding on costa and in submedian fold; a dentate terminal band extending round the apex. Hind wing tinged with crimson, especially on terminal area; the termen nearly straight, the tornus slightly lobed.

Hab. SINGAPORE (*Ridley*), 1 ♂ type. *Exp.* 30 millim.

629. *Chionæma amabilis*.

Bizone amabilis, Moore, P. Z. S. 1877, p. 597, pl. 59. f. 2; Hmps. Moths Ind. ii. p. 57; Kirby, Cat. Het. p. 302.

♂. White; palpi and antennæ scarlet; tegulæ and thorax with scarlet bands; legs scarlet and white; abdomen dorsally tinged with scarlet except towards base. Fore wing with scarlet subbasal band expanding towards costa and not reaching inner margin; an antemedial band slightly bent inwards to costa and outwards to inner margin; an oblique postmedial band slightly expanding below middle; a scarlet spot in end of cell and two on discocellulars almost conjoined, and a short subcostal streak beyond the postmedial line; a terminal band extending round the apex. Hind wing white tinged with crimson; a scarlet patch on middle of costal area extending to median nervure.

♀. Fore wing with one scarlet discoidal spot.

Hab. ANDAMANS, Moore Coll., 1 ♂, 1 ♀ type; CAR NICOBAR, 1 ♀. *Exp.*, ♂ 22, ♀ 24 millim.

^b. Fore wing of female with vein 6 from cell; 9 from 7.

630. *Chionæma effracta*.

Barsine effracta, Wlk. ii. 546 (1854); Hmps. Moths Ind. ii. p. 57; Kirby, Cat. Het. p. 303.

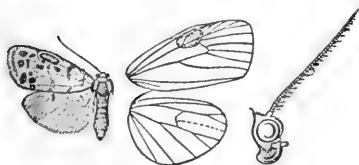


Fig. 217.—*Chionæma effracta*, ♂. 1.

medial bands excurved in cell; a spot in middle of cell, one in end

White with a slight yellowish tinge; antennæ and a band on thorax and patagia orange; legs ochreous and white; a large ochreous anal tuft. Fore wing with subbasal orange band, expanding into a streak on costa and not reaching inner margin; antemedial and

of cell, and two on discocellulars; an interrupted postmedial band excurved from costa to vein 2, and angled inwards in submedian fold; a subterminal series of spots. Hind wing with slight discoidal yellow lunule on underside.

Hab. NEPAL (*Hardwicke*), 1 ♀ type; SIKHIM, 1 ♂; BURMA, Rangoon, 3 ♀. *Exp.* 24 millim.

- b. Fore wing of male with hardly a trace of the lobe or costal fringe; a tuft of long hair on underside from base of vein 2 lying on a streak of androconia.

*631. *Chionæma unipunctata*.

Bizone unipunctata, Elwes, P. Z. S. 1890, p. 392; Kirby, Cat. Het. p. 303.

♂. White; palpi, antennæ, and legs yellow-brown; tegulæ edged with scarlet in front. Fore wing with short subbasal scarlet line expanding towards costa, of which the edge is scarlet to the antemedial line which is angled outwards in cell, and with a short



Fig. 218. — *Chionæma unipunctata*, ♂. †.

fascia from its angle towards end of cell, below the cell minutely sinuous; a scarlet point at lower angle of cell; the postmedial line oblique, ending on inner margin near tornus and obtusely angled at vein 4; the terminal line with crenulate inner edge. Hind wing yellowish white with a slight red tinge.

♀. Fore wing without the fascia in cell; the discoidal point black; hind wing white, with the termen pale red.

Hab. JAPAN, Loochoo (*Pryer*), type † in Coll. Leech. *Exp.* 28 millim.

SECT. II. Fore wing of female with veins 4, 5 from cell.

- A. Hind wing with veins 3, 4 coincident; fore wing of male with the lobe single, the fringe on costa rather slightly developed.

- a. Fore wing of male with veins 3, 4 becoming coincident on terminal area; palpi upturned.

632. *Chionæma obscura*, n. sp.

♂. Dull brown; palpi blackish; patagia with black spots; legs marked with black; abdomen dorsally tinged with black except at base, the anal tuft ochreous. Fore wing with black subbasal point; two

irregularly waved purplish-black antemedial lines; a purplish-black spot in end of cell and two on discocellulars; an irregularly dentate postmedial line angled outwards below costa, with a similar less distinct line beyond it and a subterminal line, neither of them angled below costa; a terminal series of dark points. Hind wing fuscous.

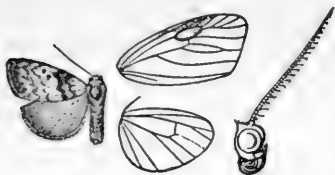


Fig. 219.—*Chionæma obscura*, ♂. 1.

♀. Fore wing with the second antemedial line stronger and confluent with the spot in cell.

Hab. QUEENSLAND, 1 ♂, 1 ♀ type. *Exp.*, ♂ 24, ♀ 30 millim.

b. Fore wing of male with veins 3, 4 not becoming coincident.

633. *Chionæma pudens*.

Bizone pudens, Wlk. Journ. Linn. Soc., Zool. vi. p. 120 (1862); Kirby, Cat. Het. p. 302.

Bizone perversa, Butl. Trans. Ent. Soc. 1877, p. 338 (♀).

♂. White; palpi and antennæ scarlet; vertex of head with scarlet point; tegulæ edged with scarlet; thorax and patagia with scarlet band; metathorax with scarlet spot; fore and mid tibiæ and tarsi banded with scarlet; abdomen dorsally tinged with scarlet at middle. Fore wing with incurved subbasal scarlet line; an antemedial line slightly bent inwards to costa; a short wedge-shaped scarlet spot in end of cell and two discoidal points: the postmedial line bent inwards to costa, excurved to vein 3, then incurved; a terminal band running round the apex and joining the postmedial line below costa, its inner edge dentate. Hind wing white, tinged with scarlet towards termen.

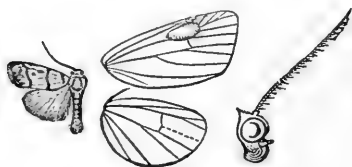


Fig. 220.—*Chionæma pudens*, ♂. 1.

♀. Fore wing with a more elongate streak in end of cell; the terminal band not joining the postmedial line; hind wing pale scarlet.

Hab. BORNEO, Sarawak (*Wallace*), 5 ♂ type, 1 ♀ type *perversa*. *Exp.* 20 millim.

B. Hind wing with veins 3, 4 stalked.

a. Fore wing of male with the lobe trifid, the costal fringe moderately developed.

a¹. Fore wing with the lines scarlet.

a². Hind wing crimson.

a³. Fore wing with terminal crimson band *pratti*.

b³. Fore wing without terminal crimson band *adelina*.

- b*². Hind wing white.
- a*³. Fore wing of male with the two discoidal spots conjoined into a bar; female with the postmedial line not bent outwards to costa *signa*.
- b*³. Fore wing of male with the two discoidal spots separate; female with the postmedial line bent outwards to costa *adita*.
- b*¹. Fore wing with the lines yellow.
- a*². Hind wing yellow *guttifera*.
- b*². Hind wing white.
- a*³. Fore wing with subterminal yellow line.
- a*⁴. Abdomen tinged with scarlet towards extremity... *grandis*.
- b*⁴. Abdomen wholly white *molleri*.
- b*³. Fore wing without subterminal band *khasiana*.

634. *Chionæma pratti*. (Plate XXVI. fig. 3.)

Bizone pratti, Elwes, P. Z. S. 1890, p. 394; Kirby, Cat. Het. p. 303.

♀. White; palpi brown at tips; fore tibiæ and tarsi banded with brown; patagia scarlet at extremity; abdomen dorsally tinged with scarlet. Fore wing with subbasal scarlet band from costa to below cell; an antemedial band excurved below costa and incurved below cell; a black spot in end of cell and two obliquely placed on discocellulars; the postmedial band angled inwards on vein 5 and outwards on vein 4; a terminal band not reaching costa or tornus and expanding below apex. Hind wing crimson; the cilia white.

♂. Fore wing with one spot on discocellulars; the postmedial line attenuate and bent inwards towards costa; the scarlet developed into a large patch at apex.

Hab. CHINA, Changyang, Ichang, Ningpo, type † in Coll. Leech; CHUSAN I. (J. J. Walker), 1 ♀. *Exp.* 28–34 millim.

635. *Chionæma adelina*.

Bizone adelina, Staud. Rom. Mém., Lép. iii. p. 191, pl. 10. f. 14 (1887); Kirby, Cat. Het. p. 303.

♂. White; patagia with crimson bar; palpi blackish; fore and mid tibiæ and tarsi marked with blackish. Fore wing with short subbasal crimson band; the antemedial band excurved from costa to just below median nervure, where it is angled inwards, then excurved again; a black spot in end of cell and a discoidal spot; a blackish mark below the costal fringe on the postmedial crimson band, which is oblique, narrow from costa to vein 5, then expanding and slightly bent inwards below vein 3. Hind wing crimson; the costal area, the inner margin, and cilia white.

♀. Fore wing with two discoidal black spots; the postmedial band more regularly oblique, slightly incurved beyond the cell.

Hab. AMURLAND, Vladivostock, 1 ♀ cotype. *Exp.*, ♂ 38, ♀ 40 millim. Type † in Coll. Staudinger.

636. *Chionæma signa*. (Plate XXVI. fig. 13.)

Bizone signa, Wlk. ii. 550 (1854); Hmps. Moths. Ind. ii. p. 58 (part); Swinh. Cat. Het. Mus. Oxon. p. 112; Kirby, Cat. Het. p. 302.
Bizone fasciculata, Wlk. vii. 1684 (1856); Kirby, Cat. Het. p. 302.

♂. Pure white; palpi black above; antennæ blackish; tegulæ edged with scarlet; patagia and metathorax with scarlet spots; fore legs and mid tarsi banded with black. Fore wing with short subbasal line; the costal edge scarlet to the antemedial line, which is oblique and very slightly angled outwards in cell; a black spot in end of cell and discoidal bar; the postmedial line not reaching costa, oblique to vein 3, where it is obtusely angled, and with black spot on its outer edge below costa.

♀. Fore wing with the costal edge not red; two discoidal black spots; the postmedial line less oblique from costa to vein 3.

Hab. ASSAM, Khâsis, 2 ♂, type; BURMA, N. Khyen Hills (*Watson*), 1 ♀. *Exp.*, ♂ 38-43, ♀ 50 millim. Type† *fasciculata* in Mus. Oxon.

637. *Chionæma adita*.

Bizone adita, Moore, Lep. E. I. C. p. 306, pl. 7 a. f. 11 (1859); Hmps. Moths Ind. ii. p. 58; Kirby, Cat. Het. p. 302.
Bizone bifasciata, Pouj. Bull. Soc. Ent. Fr. (6) vi. p. cxxiv (1886); Kirby, Cat. Het. p. 303.
Bizone walkeri, Elwes, P. Z. S. 1890, p. 393, pl. 32. f. 7; Kirby, Cat. Het. p. 302.

♂. Pure white; palpi black above; antennæ blackish; tegulæ edged with scarlet; the front part of patagia scarlet; fore and mid legs banded with black. Fore wing with scarlet spot on costa near base; the costal edge scarlet to the antemedial line, which is

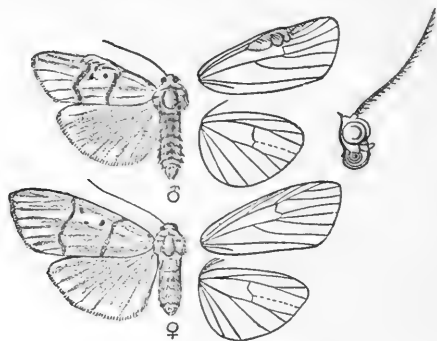


Fig. 221.—*Chionæma adita*. 1.

obliquely curved; a black spot in end of cell and two on discocellulars; the postmedial scarlet line oblique from costa to vein 3, and with black spot on its outer edge below costa.

♀ sometimes without red on tegulæ, patagia, and costal edge of

fore wing; the spot at upper angle of cell placed further from base than the lower spot; the postmedial line bent outwards to costa.

Hab. TIBET, Moupin; N.W. HIMALAYAS, Simla, 1 ♂, Dalhousie, 1 ♀ (*Harford*), Kangra, 1 ♂, 3 ♀ (*Hocking*); SIKHIM (*Col. Buckley*), 1 ♂, 1 ♀ type, (*Lidderdale*) 1 ♂, 1 ♀. *Exp.*, ♂ 36, ♀ 42 millim.

638. *Chionæma guttifera*. (Plate XXVI. fig. 25.)

Bizone guttifera, Wlk. vii. 1779 (1856); Hmps. Moths Ind. ii. p. 59; Kirby, Cat. Het. p. 302.

Bizone triguttata, Wlk. Char. Lep. Het. p. 89 (1869); Kirby, Cat. Het. p. 302.

♂. White; palpi fuscous at tips; antennæ yellowish; tegulæ edged with orange; a band across thorax and patagia; legs brown and white. Fore wing with short subbasal orange band from costa; the antemedial band slightly curved from costa to submedian fold, then outwardly oblique; a black spot in end of cell and spot at lower angle; the postmedial orange line bent inwards to costa, excurved to submedian fold, then outwardly oblique, with a subcostal black point on its outer edge; the terminal band bent inwards below apex and hardly reaching tornus. Hind wing orange-yellow, the costal area and cilia white.

♀. Fore wing with a black spot at upper angle of cell instead of beyond the postmedial line, which is less bent inwards to costa.

Hab. N.W. HIMALAYAS, Landoor (*Hearsey*), 1 ♀ type, Kangra (*Hocking*), 1 ♂, 2 ♀; SIKHIM (*Lidderdale*), 2 ♀; BOMBAY, Khandalla; TRAVANCORE, Pirmád; ANDAMANS. *Exp.* 32-34 millim.

*639. *Chionæma grandis*. (Plate XXVI. fig. 18.)

Bizone grandis, Mab. Bull. Soc. Philom. (7) iii. p. 136 (1879); Kirby, Cat. Het. p. 303.

♂. White; palpi blackish; tegulæ and patagia edged with yellow; tibiæ and tarsi with black bands; abdomen dorsally tinged with scarlet on terminal half, the extremity white. Fore wing with subbasal yellow band not reaching below vein 1; an antemedial band angled inwards below the cell, then excurved; a round black spot in end of cell and discoidal bar; the postmedial yellow band bent inwards to costa, and interrupted at the costal fringe which has a black spot at its extremity; a subterminal yellow band curved inwards to costa. Hind wing very slightly tinged with yellow.

Hab. MADAGASCAR, type † ♂ in Coll. Mabilie. *Exp.* 48 millim.

640. *Chionæma mollerii*. (Plate XXVI. fig. 7.)

Bizone mollerii, Elwes, P. Z. S. 1890, p. 395; Hmps. Moths Ind. ii. p. 60; Kirby, Cat. Het. p. 304.

Cyana watsoni, Hmps. Journ. Bomb. Nat. Hist. Soc. xi. p. 296 (1897).

♂. Pure white; palpi, frons, and antennæ yellowish brown; tegulæ edged with orange; an orange band on thorax and patagia

and spot on metathorax; fore legs banded with brown. Fore wing with short subbasal orange band; an oblique antemedial band interrupted below costa, where it is represented by a spot on beginning of costal fringe; a large black spot in end of cell and one at lower angle; the postmedial line bent inwards and attenuate towards costa, where it is represented by a spot on the fringe, at vein 4 stronger and again finer at inner margin, two obliquely-placed black points beyond it below costa: the subterminal band strongly bent inwards below apex and not reaching costa or inner margin.

♀. Fore wing with the ante- and postmedial bands attenuate, but not interrupted below costa, the latter being almost straight and erect; a large black spot at upper angle of cell.

Hab. SIKHIM, type ♀ in Coll. Elwes; ASSAM, Khâsis, 1 ♂, 1 ♀, type *watsoni*; UPPER BURMA (*Watson*), 2 ♀. *Exp.*, ♂ 30, ♀ 38 millim.

641. *Chionæma khasiana*. (Plate XXVI. fig. 29.)

Cyana khasiana, Hmps. Journ. Bomb. Nat. Hist. Soc. xi. p. 296 (1897).

♂. Pure white; palpi black; antennæ blackish; tegulæ edged with orange; orange spots on patagia, meso- and metathorax; fore legs banded with black. Fore wing with subbasal orange spots on costa and median nervure; the antemedial band oblique and rather narrow; large black spots in end of cell and at lower angle, the latter conjoined to a small spot at upper angle; the postmedial band obliquely curved, expanding below middle, and with black point on its outer edge below costa.

♀. Fore wing with the bands narrower; the postmedial band obtusely angled at vein 3.

Hab. ASSAM, Khâsis, 1 ♂, 2 ♀, type. *Exp.*, ♂ 40, ♀ 52 millim.

b. Fore wing of male with the lobe bifid.

a¹. Fore wing of male with the inner part of lobe large and elongate; the fringe long and strongly developed.

a². Fore wing of male with a slight tuft of long hair on underside from vein 2 near its origin.

*642. *Chionæma fasciola*.

Bizone fasciola, Elwes, P. Z. S. 1890, p. 391; Kirby, Cat. Het. p. 303.

♂. White; palpi brownish, dark towards tips; antennæ reddish; tegulæ and patagia edged with scarlet; a spot on metathorax; legs mostly brown; abdomen tinged with brown towards extremity. Fore wing with short subbasal scarlet line expanding towards costa; the costal edge brown to the antemedial line, which is nearly erect, slightly excurved in cell, and emitting a short fascia towards end of cell; two obliquely placed black discoidal spots; a scarlet spot on the costal fringe; an oblique slightly sinuous postmedial line ending on termen near tornus; the terminal band running just round the apex. Hind wing crimson, with the cilia white.

♀. Fore wing without the fascia in cell; one black spot on discocellulars; the postmedial line slightly bent outwards at vein 4.

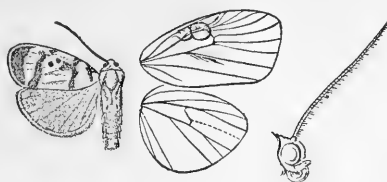


Fig. 222.—*Chionæma fasciola*, ♂. ♀.

Hab. CHINA, Chang-yang, Ichang, type † in Coll. Leech. *Exp.* 28 millim.

b². Fore wing of male without tuft of long hair on underside.

a³. Fore wing of male with oblique fringe of upturned hair on medial area below cell, the costal fringe very long; the inner part of lobe very long, the outer small; vein 4 with its outer half obsolete.

643. *Chionæma costifimbria*.

Bizone costifimbria, Wlk. Journ. Linn. Soc., Zool. vi. p. 121 (1862); Swinhoe, Cat. Het. Mus. Oxon. p. 112; Kirby, Cat. Het. p. 302.

♂. White; palpi and antennæ orange; tegulæ edged with orange; orange bands across thorax and patagia and on metathorax;



Fig. 223.—*Chionæma costifimbria*, ♂. ♀.

fore legs and tarsi banded with orange; abdomen tinged with yellow. Fore wing with subbasal orange band expanding on costa and inner margin and connected at middle by a streak with the antemedial band, which commences as a patch on costal

fringe, then attenuate, and expanding into a patch below submedian fold; the oblique fringe of hair orange; the postmedial band forking towards costa into two patches on the costal fringe and with a black line on its outer edge below middle; a broad terminal band with sinuous inner edge. Hind wing yellow.

Hab. BORNEO, Sandakan (Pryer), 1 ♂, Sarawak (Wallace), 1 ♂ type † in Mus. Oxon. *Exp.* 30–34 millim.

b³. Fore wing without oblique fringe of hair on medial area below the cell.

a⁴. Fore wing without black lines on the ante- and postmedial bands.

a⁵. Fore wing without black spots *impunctata*.

b⁵. Fore wing of male with two black spots, of female with one *sumatrensis*.

- b*¹. Fore wing with black lines on the ante- and postmedial bands.
*a*⁵. Fore wing with the bands orange *conclusa*.
*b*⁵. Fore wing with the bands scarlet.
*a*⁶. Fore wing with the postmedial band angled inwards in submedian fold *javanica*.
*b*⁶. Fore wing with the postmedial band not angled in submedian fold.
*a*⁷. Hind wing crimson *plateni*.
*b*⁷. Hind wing white, tinged with crimson towards termen *perornata*.
*c*⁷. Hind wing pale yellow, the costal area white *lutipes*.
*c*⁵. Fore wing without orange or scarlet ante- and postmedial bands *nigrilineata* (♀).

*644. *Chionæma impunctata*. (Plate XXVII. fig. 23.)

Bizone impunctata, Feld. Sitz. Akad. Wien, xliii. p. 37 (1861); Kirby, Cat. Het. p. 303.

♂. Pure white; palpi orange-red; a scarlet band across mesothorax and patagia; fore and mid tibiæ and the tarsi banded with orange-red; abdomen dorsally scarlet at extremity. Fore wing with slightly irregular subbasal crimson band; a slightly oblique medial band expanding somewhat towards costa; an oblique streak on costal fringe to the postmedial band, which is bent outwards and irregular towards costa, then excurved and below vein 4 broader; a wedge-shaped patch on apical part of termen from costa to above vein 5.

♀. Fore wing with the bands more regularly curved.

Hab. AMBOINA, type ♂ in Coll. Rothschild, ♀ in Coll. Staudinger. *Exp.* 30 millim.

*645. *Chionæma sumatrensis*. (Plate XXVI. fig. 6.)

Chionæma sumatrensis, Druce, A. M. N. H. (7) iv. p. 200 (1899).

♂. White; palpi, lower part of frons, and antennæ orange; tegulæ and patagia edged with orange; thorax with orange band; fore and mid femora and tibiæ streaked with orange, the latter with black patches above, the tarsi banded with orange; abdomen with the terminal half orange above. Fore wing with narrow subbasal line arising from a short streak on costa; the antemedial line oblique towards costa, then sinuous and emitting a short streak in cell; two black spots in end of cell; the postmedial line sinuous, oblique from costa to vein 3, and with a short oblique striga beyond it from costa; a terminal band with dentate inner edge.

♀. The markings scarlet; fore wing with no streak in cell and one black spot in end of it; the postmedial line bent outwards to costa. Hind wing and underside suffused with scarlet.

It is probable that a ♂ with scarlet markings will be found.

Hab. SUMATRA, Padang (*Bock*), type ♂ ♀ in Coll. Druce. *Exp.*, ♂ 40, ♀ 42 millim.

646. *Chionæma conclusa*. (Plate XXVI. fig. 28.)

Bizone conclusa, Wlk. Journ. Linn. Soc., Zool. vi. p. 120 (1862); Swinh. Cat. Het. Mus. Oxon. p. 112; Kirby, Cat. Het. p. 302.

♂. White; palpi and antennæ orange; tegulæ edged with orange; orange bands across thorax and patagia and on metathorax; tibiæ and tarsi banded with orange; abdomen with the distal half dorsally orange. Fore wing with the subbasal orange band dentate on outer side, attenuate between the cell and vein 1 and not quite reaching inner margin; the costa streaked with orange to the antemedial band, which has sinuous edges, expanding towards inner margin, emitting a short fascia outwards in cell, and with more or less prominent black line on its inner side; two almost conjoined black discoidal points; the postmedial band forking into two spots on costal fringe, excurved to submedian fold where it is angled inwards, then outwardly oblique with more or less prominent black line on its outer side; a broad terminal band with dentate inner edge. Hind wing yellow.

Hab. BORNEO, Sarawak (*Wallace*), 2 ♂. *Exp.* 38–40 millim. Type in Mus. Oxon.

647. *Chionæma javanica*.

Bizone javanica, Butl. Trans. Ent. Soc. 1877, p. 338; Hmps. Moths Ind. iv. p. 493; Kirby, Cat. Het. p. 301.

Bizone puella, Moore, Cat. Lep. E. I. C. p. 305, pl. 13. f. 13 (nec Drury).

♂. White; palpi, lower part of frons, antennæ, edges of tegulæ, and bands on mesothorax, patagia, and metathorax orange-red; fore and mid tibiæ banded with black, some orange-red on fore coxæ and femora and bands on tarsi; abdomen yellow, tinged with crimson towards extremity. Fore wing with sinuous subbasal orange-red line not quite reaching inner margin; an obliquely sinuous antemedial orange-red line edged by a black line on inner side; an orange-red patch in end of cell and two black spots on discocellulars; a postmedial orange-red line oblique from costa to vein 4, then sinuous and edged with black on outer side; an orange-red mark beyond the costal fringe, and a terminal band with dentate inner edge. Hind wing white, tinged with yellow especially towards termen.

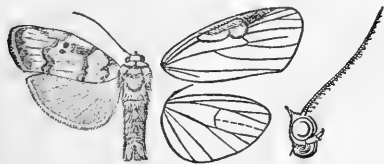


Fig. 224.—*Chionæma javanica*, ♂. $\frac{1}{2}$.

♀. Fore wing with one discoidal black spot; the postmedial line sinuous and edged with black throughout. Hind wing yellow tinged with crimson, the cilia white.

Ab. 1. Fore wing with the markings scarlet, the ante- and post-medial bands broader. Hind wing with the cilia yellow.—Nias.

Hab. BURMA, Shán States; SINGAPORE; NIAS (*Schreiber*), 1 ♀; JAVA (*Horsfield*), 5 ♂, 5 ♀, type, Arjuno, 1 ♂; BALI (*Doherty*), 1 ♂. *Exp.*, ♂ 36, ♀ 36-42 millim.

Larva uniform black, with sparse tufts of very long hair; prolegs yellow. Food-plant, *Muscus*.

Cocoon a very open network formed of hairs of the larva.

648. *Chionæma plateni*. (Plate XXVII. fig. 13.)

Bizone plateni, Elwes, P. Z. S. 1890, p. 391; Kirby, Cat. Het. p. 304.

♂. Head and thorax white; palpi, antennæ, a band on thorax and patagia, a patch on metathorax and bands on legs orange; abdomen orange, tinged with red towards extremity. Fore wing white; an oblique subbasal series of three conjoined scarlet spots, with black spots on their outer edge; an oblique antemedial scarlet band with irregular black line on its inner side; two black discoidal points; an obliquely sinuous postmedial scarlet band with black line on its outer side; a brown mark at end of fringe on costa; a terminal scarlet band with irregular inner edge, expanding towards costa and not reaching inner margin. Hind wing crimson, with the cilia yellow, white towards apex. Underside of fore wing suffused with crimson.

♀. Fore wing with the subbasal line continuous and reaching inner margin, the red bands reduced to lines except the terminal band; a single discoidal point.

Hab. N. CELEBES, type in Coll. Elwes; SANGIR (*Doherty*), 1 ♂, 1 ♀. *Exp.*, ♂ 48, ♀ 54 millim.

649. *Chionæma perornata*.

Bizone perornata, Wlk. ii. 548 (1854); Butl. Ill. Het. v. p. 37, pl. 86. f. 8; Hmps. Moths Ind. ii. p. 57; Kirby, Cat. Het. p. 303.

♂. White; palpi scarlet, black at tips; antennæ, neck, edges of tegulæ, and bands on thorax, patagia, and metathorax scarlet; legs white, marked with black and scarlet; abdomen dorsally tinged with scarlet except towards base. Fore wing with subbasal scarlet band from costa to submedian fold; an antemedial slightly curved band edged with black on inner side; a black discoidal spot; an oblique postmedial scarlet band edged by black on outer side below middle; a streak on costa beyond the fringe and dentate marks on termen, usually reduced to a line except towards apex. Hind wing with the terminal area more or less tinged with scarlet.

♀. Fore wing with the antemedial band oblique and the black line on its inner side irregular; the postmedial line edged with black throughout; the dentate marks reduced to two small spots below apex or absent.

Hab. SIKHIM; ASSAM, Silhet, 2 ♂, 1 ♀ type; BORNEO, Sarawak (*Wallace*), 1 ♂; JAVA, 1 ♀. *Exp.*, ♂ 46, ♀ 50 millim.

650. *Chionæma lutipes*, n. sp. (Plate XXVII. fig. 1.)

♂. Head and thorax white; antennæ, tips of tegulæ, patagia, and patches on meso- and metathorax orange-scarlet; fore and mid femora, tibiæ, and tarsi and hind tarsi banded with orange-scarlet; abdomen pale yellow above, white below. Fore wing white; a subbasal scarlet band from costa to vein 1 bounded by a fine black line on outer side; an antemedial scarlet band defined on inner side by a black line and curved from costa to submedian fold, where it is angled inwards; obliquely placed black spots in upper angle of cell and on discocellulars; an obliquely curved postmedial band defined by a black line on outer side, expanding at costa and including a white point and with a black point beyond it below costa; a terminal band with irregularly waved inner edge. Hind wing pale yellow, the costal area white.

Hab. PHILIPPINES, 1 ♂ type, Zell. Coll. *Exp.* 26 millim.

651. *Chionæma nigrilineata*, n. sp. (Plate XXVII. fig. 2.)

♀. White; palpi scarlet, black at tips; antennæ scarlet; tegulæ edged with scarlet; patagia with slight crimson marks on outer side at base; mesothorax with scarlet patch; fore and mid tibiæ with black bands; tarsi with fulvous bands; abdomen dorsally tinged with scarlet. Fore wing with subbasal scarlet spot on median nervure; the costal edge black to the antemedial fine black line, which is bent inwards to costa and outwards to inner margin; a black discoidal spot; a fine postmedial black line, obliquely bent outwards between veins 5 and 4, then erect; a scarlet band just inside termen with minutely dentate inner edge. Hind wing pale crimson, the cilia white. Underside of fore wing suffused with scarlet, especially towards costa beyond middle.

Hab. SUMATRA (*H. O. Forbes*), 1 ♀ type. *Exp.* 40 millim.

*b*¹. Fore wing of male with the lobes small and closely attached; the costal fringe much slighter.

*a*². Fore wing in both sexes with three black spots at end of cell.

*a*³. Fore wing with the bands scarlet *ariadne*.

*b*³. Fore wing with the bands orange.

*a*⁴. Fore wing with subterminal orange band.

*a*⁵. Abdomen with the terminal half of dorsum crimson *arama*.

*b*⁵. Abdomen wholly white.

*a*⁶. Fore wing with the ante- and postmedial bands conjoined below cell *divakara*.

*b*⁶. Fore wing with the bands separate *dohertyi*.

*b*¹. Fore wing without subterminal band *sikkimensis*.

*c*³. Fore wing without bands *candida*.

*b*². Fore wing of male with three black spots at end of cell, female with two

*c*². Fore wing with three fuscous annuli at end of cell. *puer.*
detrita.

*652. *Chionæma ariadne*. (Plate XXVII. fig. 30.)*Bizone ariadne*, Elwes, P. Z. S. 1890, p. 394; Kirby, Cat. Het. p. 303.

♂. White; palpi and antennæ brownish; tegulæ and patagia edged with scarlet; a spot on metathorax; fore legs banded with brown; abdomen with some brown on dorsum and on ventral surface. Fore wing with subbasal scarlet line angled below median nervure and attenuate towards inner margin; the antemedial band curved from costa to below cell, where it is strongly angled inwards, then excurved again; a black spot in end of cell and two on discocellulars; the postmedial band bent inwards and attenuate towards costa, incurved below vein 3 and bent outwards to inner margin; the terminal band bent inwards below costa, leaving the apex white and not reaching costa or tornus. Hind wing with pale crimson suffusion from lower angle of cell to tornus. Underside of fore wing with the end of cell and lobe black-brown.

♀. Abdomen without brown; fore wing with the bands narrower, the postmedial band more sinuous; hind wing with less crimson suffusion.

Hab. CHINA, Chang-Yang (*Pratt*), Kia-ting-fu, type † in Coll. Leech. *Exp.*, ♂ 38, ♀ 44 millim.

653. *Chionæma arama*.

Bizone arama, Moore, Cat. Lep. E. I. C. p. 306, pl. 7 a. f. 10 (1859); Hmps. Moths Ind. ii. p. 62; Kirby, Cat. Het. p. 302.

♂. White; palpi black above; antennæ blackish; tegulæ edged with orange; orange spots on patagia and mesothorax, and a crimson spot on metathorax; abdomen dorsally tinged with crimson except towards base; legs marked with black. Fore wing with subbasal orange band not reaching inner margin; an oblique sinuous antemedial band; a black spot in end of cell and one at lower angle; a sinuous postmedial orange band angled at vein 4 and with a black point on its outer edge below costa; a subterminal orange band bent inwards towards costa. Hind wing with the inner half tinged with pinkish; a dark discoidal lunule on underside.

♀. Fore wing with the black spots large, the upper one placed at angle of cell instead of beyond the postmedial band.

Hab. SIKHIM, 3 ♀ type, (*Dudgeon*) 1 ♀; ASSAM, Jawai Hills, 1 ♀, Naga Hills. *Exp.* 50-54 millim.

654. *Chionæma divakara*.

Bizone divakara, Moore, P. Z. S. 1865, p. 798, pl. 42. f. 9; Hmps. Moths Ind. ii. p. 60; Kirby, Cat. Het. p. 303.

♂. Head white; palpi black above; antennæ brownish; thorax white, with broad edges to tegulæ, the patagia except in front, and spots on meso- and metathorax fulvous orange; fore and mid legs banded with black; abdomen white. Fore wing fulvous orange; a white patch at base with black spot on it at costa; the basal

third of inner area white; a short white streak in cell; an elliptical white discoidal patch connected with a patch on costa, and with a black spot in end of cell and inverted-comma-shaped discoidal mark on it; the postmedial line fine, white, irregularly dentate, incurved

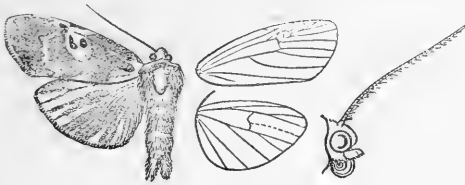


Fig. 225.—*Chionæma divakara*, ♂. $\frac{1}{2}$.

and with a minute black streak on it below costa; a white spot on middle of inner margin; the cilia white. Hind wing pure white.

♀. Fore wing with the discoidal patch more rounded; two discoidal spots; the postmedial line stronger.

Hab. SIKHIM (*Lidderdale, Sadler*), Moore Coll., 4 ♂, 3 ♀. *Exp.*, ♂ 46, ♀ 56 millim.

655. *Chionæma dohertyi*.

Bizone dohertyi, Elwes, P. Z. S. 1890, p. 394, pl. 32. f. 4; Hmps. Moths Ind. ii. p. 62; Kirby, Cat. Het. p. 303.

♂. Pure white; palpi blackish towards tips; antennæ brownish; tegulæ edged with yellow; a yellow band on thorax and patagia, and spot on metathorax; fore legs banded with brown. Fore wing with short subbasal orange-yellow band from costa; the antemedial band excurved from costa to submedian fold, where it is angled inwards, then obliquely excurved again; a black spot in end of cell and two on discocellulars; the postmedial line bent inwards and attenuate towards costa, stronger and incurved below vein 4, and with a blackish point beyond it just below costa; the terminal line faint, not reaching costa or tornus and bent inwards below apex. Hind wing pure white or tinged with yellow on terminal area.

♀. Fore wing with the bands stronger, especially the postmedial band towards costa, below which it is not bent inwards.

Hab. N.W. HIMALAYAS, Moore Coll., 1 ♂; SIKHIM (*Pilcher*), 1 ♀; ASSAM, Khâsis, 1 ♂. *Exp.* 34 millim. Type † in Coll. Elwes.

656. *Chionæma sikkimensis*. (Plate XXVII. fig. 3.)

Bizone sikkimensis, Elwes, P. Z. S. 1890, p. 395; Hmps. Moths Ind. ii. p. 59; Kirby, Cat. Het. p. 304.

♂. Pure white; palpi black above; antennæ brownish; tegulæ edged with orange; an orange band on thorax and patagia and spot on metathorax; fore legs and tarsi banded with black. Fore wing with black point at base of costa; the subbasal orange band formed

of conjoined spots on costa and median nervure; the antemedial band strongly excurved below costa and rather sinuous below median nervure; a black spot in end of cell and one at lower angle; the postmedial orange band very obtusely angled at vein 2 and with black points on its inner and outer edges below costa.

♀ with one black spot at upper angle of cell of fore wing, instead of the two points.

Hab. TIBET, Yatong, 10,500 feet, 3 ♂, 2 ♀ (*Hobson*); SIKHIM, 7000–10,000 feet (*Elwes*), 1 ♂. *Exp.*, ♂ 42, ♀ 46 millim. Type† in Coll. Elwes.

657. *Chionæma candida*.

Chionæma candida, Feld. Reis. Nov. pl. 103, f. 17 (1874); Hmps. Moths Ind. ii. p. 58; Kirby, Cat. Het. p. 303.

♂. Pure white; palpi black above; antennæ blackish; patagia and mesothorax sometimes with crimson spots; fore and mid legs banded with black. Fore wing with crimson streak on basal part of costa; a black spot in end of cell, two on discocellulars, and a postmedial point below costa.

♀ without the subcostal black point on fore wing.

Hab. N.W. HIMALAYAS, Simla, 1 ♂, 1 ♀, Dalhousie (*Harford*), 1 ♀; SIKHIM, 1 ♂. *Exp.*, ♂ 40, ♀ 48 millim.

658. *Chionæma puer*.

Bizone puer, Elwes, P. Z. S. 1890, p. 392, pl. 32, f. 8; Hmps. Moths Ind. ii. p. 59; Kirby, Cat. Het. p. 303.

♂. Head white; palpi black; antennæ brownish; tegulæ and patagia edged with orange; meso- and metathorax with orange spots; legs banded with black-brown; anal tuft tinged with yellow. Fore wing white; an orange subbasal line expanding towards costa and not reaching inner margin; the costal edge brown to the antemedial scarlet band, which is strongly excurved from costa to below cell; a large black spot in end of cell and two conjoined discoidal spots; the postmedial scarlet band narrowing and becoming orange towards costa, and with a black line on its outer side below vein 4; a black mark beyond it below costa; the terminal area yellow. Hind wing yellow.

♀. Fore wing with one discoidal spot besides the one in cell; the postmedial band scarlet, bent outwards and not attenuate towards costa and with the black line on its outer edge extending to costa.

Hab. SIKHIM; ASSAM, Khâsis (*Hamilton*), 2 ♂, 2 ♀, Nâgas. *Exp.*, ♂ 40, ♀ 44 millim.

659. *Chionæma detrita*.

Cyana detrita, Wlk. ii. 529 (1854); Butl. Ill. Het. v. p. 37, pl. 86, f. 9; Hmps. Moths Ind. ii. p. 60; Kirby, Cat. Het. p. 299.

Barsine suffundens, Wlk. xxxi. 250 (1864); Kirby, Cat. Het. p. 307.

♂. White; head, thorax, and abdomen mixed with brown; palpi and fore legs above brown. Fore wing irrorated with brown;

a diffused brown subbasal line from costa to below cell; an ante-medial diffused band expanding into a large patch below the cell; an annulus in end of cell, another at lower angle, and a small spot at upper angle; a diffused postmedial band expanding into a patch on inner area; an indistinct dentate subterminal line. Hind wing pure white.

♀. Fore wing with larger spot at upper angle of cell.

Hab. N.W. HIMALAYAS, Masuri, 1 ♀, Kangra (*Hocking*), 2 ♂, 3 ♀; SIKHIM (*Elwes*), 1 ♀; ASSAM, Khâsis, 1 ♂, 2 ♀ type, Nâgas; ? S. INDIA, type † *suffundens* in Mus. Oxon. *Exp.*, ♂ 28, ♀ 38 millim.

c. Fore wing of male with the lobe single.

*a*¹. (*Clerckia*). Fore wing of male with veins 3, 4 shortly stalked; hind wing with them stalked almost to termen.

*a*². Hind wing orange and black.

*a*³. Fore wing with broad terminal black band of nearly even width.

*a*⁴. Fore wing with the basal black patch small and reaching costa *miles*.

*b*¹. Fore wing with the basal patch large and not reaching above median nervure *securizonis*.

*b*³. Fore wing with the inner edge of terminal band retracted towards base on inner area.

*a*¹. Fore wing with the retracted part of terminal band broad throughout and ending at middle of wing *tricolor*.

*b*¹. Fore wing with the retracted part of terminal band running obliquely to inner margin before middle *fulvia*.

*b*². Hind wing hyaline, with broad black margins ... *hemacta*.

*c*². Hind wing wholly black *flaviplaga*.

660. *Chionæma miles*. (Plate XXVI. fig. 17.)

Sphragidium miles, Butl. A. M. N. H. (5) xix. p. 218 (1887); Kirby, Cat. Het. p. 314.

♂. Head, thorax, and abdomen black, tinged with blue; throat scarlet; anal tuft orange-red. Fore wing black, with broad scarlet medial band, its inner edge oblique, minutely dentate, and angled outwards above inner margin, its outer edge obtusely angled at vein 2. Hind wing with medial orange band not reaching inner margin and with dentate inner edge.

♀. Fore wing with the inner edge of the band angled inwards below costa and outwards in submedian fold, its outer edge slightly angled inwards in discal fold.

Hab. SOLOMONS, Alu (*Woodford*), 1 ♂, 1 ♀ type (*Mathew*), 2 ♀. *Exp.* 36 millim.

*661. *Chionæma securizonis*.

Exotrocha securizonis, Butl. Trans. Ent. Soc. 1889, p. 389, pl. 12. f. 2; Kirby, Cat. Het. p. 314.

♀. Head, thorax, and abdomen black shot with brilliant blue;

patches on neck scarlet. Fore wing scarlet; the costal edge blue-black; a black patch below median nervure from base to middle, shot with blue at base; the terminal third black with sinuous inner edge, the veins and termen shot with brilliant blue. Hind wing orange, with large basal black patch not extending to costa, with irregular outer edge and some blue at base; a terminal black band narrowing to tornus and with some blue on termen.

Hab. SOLOMONS, Guadalcanar, type † ♀ in Coll. Rothschild. *Exp.* 46 millim.

662. *Chionæma tricolor*. (Plate XXVII. fig. 14.)

Exotrocha tricolor, Druce, A. M. N. H. (7) iii. p. 235 (1899).

Exotrocha tegyra, Druce, A. M. N. H. (7) iii. p. 235 (1899).

Head, thorax, and abdomen black with a slight bluish tinge; tegulæ, patagia, throat, and ventral surface of abdomen orange-red, the front part of patagia black in one specimen. Fore wing orange-scarlet with the base black; a black costal fascia sinuous beyond middle, the outer area black; the outer edge of the scarlet area rounded from below costa to vein 2, then retracted to below middle of cell and almost erect to inner margin, in one female leaving a narrow black fascia on inner margin. Hind wing orange, the terminal area black; the outer edge of orange area erect from costa to vein 2, then rounded.

Hab. N. GUINEA, Fergusson I. (*Meek*), 2 ♂, 1 ♀, Woodlark (*Meek*), 1 ♂, Kiriwini (*Meek*), 1 ♀, Dinner I., Trobriand I. *Exp.*, ♂ 36, ♀ 42 millim. Types † in Coll. Druce.

Subsp. 1. Fore wing with the produced part of scarlet area much narrower, its extremity oblique below costa and only extending to vein 3.

Hab. NEW BRITAIN, 1 ♂.

663. *Chionæma fulvia*.

Noctua fulvia, Linn. Syst. Nat. i. p. 509 (1758); Clerck, Icones, pl. 55. f. 5; Kirby, Cat. Het. p. 294.

Noctua liboria, Stoll, Pap. Exot. iv. 345, D. (1782); Kirby, Cat. Het. p. 314.

Lithosia laticincta, Wlk. vii. 1683 (1856); Kirby, Cat. Het. p. 314.

♂. Head, thorax, and abdomen black; tegulæ and inner half

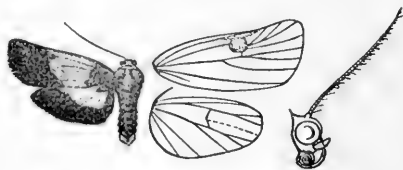


Fig. 226.—*Chionæma fulvia*, ♂. †.

of patagia scarlet; throat and ventral surface of abdomen except

towards extremity scarlet. Fore wing scarlet with black margins, the black costal fascia expanding beyond middle; the outer edge of the scarlet area curved, then running obliquely from vein 3 to just above inner margin before middle. Hind wing with the basal area orange to beyond middle, its outer edge oblique, extending to just below median nervure, where it is conjoined towards base to a shorter fascia in submedian interspace, and a slight streak on inner margin; the rest of wing black.

♀. Hind wing orange down to submedian fold; patagia wholly scarlet.

Hab. AMBOINA, 1 ♂ (*Pfeiffer*), type *laticincta*, 1 ♀ 'Challenger' Coll. *Exp.*, ♂ 34; ♀ 44 millim.

Subsp. 1. *tricolora*, Butl. Trans. Ent. Soc. 1877, p. 347.

♀. The scarlet replaced by orange with a slight red tinge, on fore wing extending to nearer termen and down to submedian fold before becoming oblique.

Hab. ARU (*Wallace*), 1 ♀ type; N. GUINEA, Kapaur (*Doherty*), 1 ♂.

*664. *Chionæma hæmacta*. (Plate XXVII. fig. 16.)

Exotrocha hæmacta, Snell. Tijd. v. Ent. xxxix, p. 160 (1896).

♂. Black with a slight bluish gloss; base of palpi and patches on tegulae, patagia, and neck crimson; metathorax with crimson patch; abdomen with crimson ventral patch at extremity. Fore wing with crimson wedge-shaped patch in end of cell. Hind wing hyaline, the costal, inner, and terminal areas broadly blue-black.

Hab. BORNEO, Kina Balu (*Waterstradt*); SUMATRA, type † ♂ in Mus. Haarlem. *Exp.* 34 millim.

665. *Chionæma flaviplaga*. (Plate XXVII. fig. 17.)

Gnaphrioides flaviplaga, Heyl. C.R. Soc. Ent. Belge, xxxv. p. 412 (1891); Kirby, Cat. Het. p. 914.

♂. Purplish black; frons and patches on patagia, metathorax, throat, and pectus orange; abdomen with the anal tuft and ventral bands orange. Fore wing with small orange spot near base; a large somewhat pear-shaped patch from subcostal nervure before end of cell to vein 1. Hind wing semihyaline towards base.

Hab. JAVA, Preanger, type † ♂ in Coll. Heylaerts; BALI (*Doherty*), 1 ♂. *Exp.* 32 millim.

*b*¹. Fore wing of male with veins 3, 4 from cell.

*a*². Fore wing of male with the lobe very large and elongate; a fringe of hair and large scales on upperside from base through the cell to costa beyond middle.

*a*³. Fore wing of male with the subcostal and median nervures approximated to beyond middle of cell, then downcurved to origin of vein 5; the subapical neuration much distorted.

666. *Chionæma melanoplagia*, n. sp.

- ♂. Pale olive-grey; head and tegulæ fuscous black; legs mostly black; abdomen with the dorsum fuscous except the base and anal tuft. Fore wing with the basal half of costa black, expanding into a triangular medial patch; a streak on inner margin before middle; an oblique postmedial dentate line obsolescent at middle; a large subterminal black patch from vein 5 to inner margin; a terminal series of black spots. Hind wing with the basal half whitish, the terminal half and costal area fuscous.

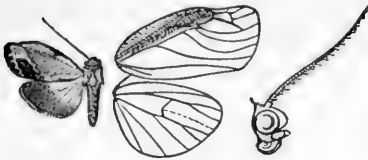


Fig. 227.

Chionæma melanoplagia, ♂. 1.

Hab. S.W. N. GUINEA, Kapaur (*Doherty*), 1 ♂ type. *Exp.* 26 millim.

- b³. Fore wing of male with the subcostal and median nervures not approximated; the lobe extremity elongate.

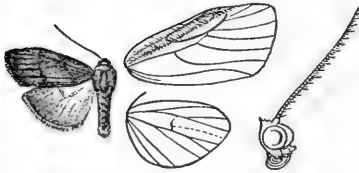
667. *Chionæma fumea*, n. sp.

Fig. 228.

Chionæma fumea, ♂. 1.

- ♂. Smoky black; anal tuft ochreous. Fore wing with indistinct oblique ante- and postmedial dark lines, the former the more oblique. Hind wing whitish; a fuscous discoidal spot, more distinct on underside; the costal and terminal areas suffused with fuscous; the inner area clothed with long brownish hair.

Hab. S.W. N. GUINEA, Kapaur (*Doherty*), 1 ♂ type. *Exp.* 28 millim.

- b². Fore wing of male with the lobe small or minute; no fringe of scales in cell.
 a³. Fore wing in both sexes with three black spots at end of cell.
 a⁴. Fore wing with orange subterminal band.
 a⁵. Fore wing with the ante- and postmedial lines scarlet and broad *bellissima*.
 b⁵. Fore wing with the ante- and postmedial lines orange-red and narrow *interrogationis*.
 b⁴. Fore wing with scarlet subterminal band.
 a⁵. Fore wing with the bands very broad ... *phædra*.
 b⁵. Fore wing with the bands narrow.
 a⁶. Hind wing crimson or tinged with crimson.
 a⁷. Fore wing with the postmedial line not angled below costa *dudgeoni*.

- b*⁷. Fore wing with the postmedial line angled inwards below costa *subornata*.
*b*⁶. Hind wing pure white *pitana*.
*b*³. Fore wing of male with three black spots in end of cell, of female with two.
*a*⁴. Fore wing with terminal dentate band.
*a*³. Fore wing of female with the black edge of postmedial band straight.
*a*⁶. Fore wing with the black edge of ante-medial band curved; ♂ yellow and scarlet *coccinea*.
*b*⁶. Fore wing with the black edge of ante-medial band sinuous *determinata* (♀).
*b*⁵. Fore wing with the black edge of post-medial band sinuous; ♂ white with scarlet bands *bianca*.
*b*⁴. Fore wing with terminal series of spots ... *amatura*.
*c*³. Fore wing with two black spots in cell in both sexes.
*a*⁴. Fore wing with the two spots placed longitudinally.
*a*⁵. Fore wing with scarlet lines.
*a*⁶. Fore wing with subbasal black spot.
*a*⁷. Tegulæ banded with scarlet *saalmuelleri*.
*b*⁷. Tegulæ not banded with scarlet ... *rubristriga*.
*b*⁶. Fore wing without subbasal black spot.
*a*⁷. Palpi scarlet; abdomen with blackish bands *pretoriæ*.
*b*⁷. Palpi blackish; abdomen without bands *delicata*.
*b*⁵. Fore wing with yellow lines *harterti*.
*c*⁵. Fore wing with blackish lines.
*a*⁶. Fore wing with the lines continuous... *africana*.
*b*⁶. Fore wing with the lines reduced to points below costal area *marshalli*.
*d*⁵. Fore wing without lines.
*a*⁶. Fore wing with subbasal black spot... *trigutta*.
*b*⁶. Fore wing without subbasal black spot.
*a*⁷. Colour white *infantula*.
*b*⁷. Colour ochreous *rejecta*.
*b*⁴. Fore wing with the two black spots placed obliquely *sanguinea*.
*d*³. Fore wing of male with two black spots at end of cell, of female with one.
*a*⁴. Fore wing with the bands scarlet *hamata*.
*b*⁴. Fore wing with the bands orange *inconclusa*.
*c*³. Fore wing of male with one black spot at end of cell *alba*.
*f*³. Fore wing of female with two brown spots in end of cell *torrida*.
*g*³. Fore wing with three obscure fuscous annuli at end of cell *gelida*.
*h*³. Fore wing without spots at end of cell *gazella*.

668. *Chionæma bellissima*.

Bizone bellissima, Moore, P. Z. S. 1878, p. 27, pl. 3. f. 13; Hmps. Moths Ind. ii. p. 61; Kirby, Cat. Het. p. 301.

♂. Head and thorax white; palpi white and brown; antennæ brown; tegulæ, patagia, mesothorax, and metathorax with scarlet

bands; fore legs banded with brown; abdomen scarlet above. Fore wing white, with subbasal scarlet band from costa to vein 1;

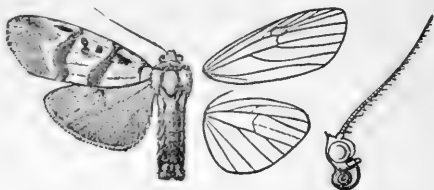


Fig. 229.—*Chionæma bellissima*, ♂. 1.

an oblique slightly sinuous band expanding towards inner margin; a black spot in end of cell and two on discocellulars; an obliquely curved postmedial scarlet band expanding below middle and with short black streak beyond it below costa; a broad yellow band on terminal area angled inwards below costa and leaving the apex white; the lobe minute. Hind wing crimson, the cilia yellowish.

♀. The scarlet bands of fore wing narrow; the subterminal yellow band narrow; hind wing with the apex, termen, and cilia white.

Ab. 1. Fore wing with the subterminal band scarlet.

Hab. N.W. HIMALAYAS, Mussooree, 1 ♂ type; SIKHIM (*Lidderdale*), 1 ♂; BURMA, E. Pegu. *Exp.*, ♂ 46, ♀ 51–64 millim.

669. *Chionæma interrogationis*. (Plate XXVII. fig. 4.)

Bizone interrogationis, Pouj. Bull. Soc. Ent. Fr. (6) vi. p. cxxv (1886); Kirby, Cat. Het. p. 303.

♂. White; palpi, antennæ, and the greater part of legs brownish yellow; orange-red spots on inner side of tegulæ and on patagia; the terminal half of abdomen suffused with pale crimson. Fore wing with orange-red spot at base connected by a streak on costa with the sinuous subbasal line, which is attenuate towards lower end and not reaching inner margin; an antemedial orange-red band excurved from costa to submedian fold, where it is angled inwards, then outwardly oblique; a black spot in end of cell and two on discocellulars, the upper minute and placed on edge of postmedial line, beyond which there is a slight oblique blackish streak below costa; the postmedial orange-red line oblique and attenuate from costa to vein 4, then much stronger and incurved; the terminal band bent inwards and expanding into a wedge-shaped patch below apex, which is white, and not reaching tornus. Hind wing pale crimson with a yellowish tinge, the cilia white.

♀. Fore wing with the markings usually more scarlet; the post-medial line incurved below costa.

Hab. CHINA, Shanghai (*Fortune*), 1 ♂, 3 ♀, Nankow Pass, 1 ♀, Moupin. *Exp.* 40 millim.

670. *Chionæma phædra*.

Bizone phædra, Leech, Trans. Ent. Soc. 1889, p. 126, pl. 9. f. 6; Kirby, Cat. Het. p. 303.

Bizone phædra, var. *moupinensis*, Leech, Trans. Ent. Soc. 1899, p. 174.

Head white; palpi and antennæ black; tegulæ and patagia crimson; thorax and abdomen white, dorsally tinged with crimson; legs black and white. Fore wing white; an irregular subbasal crimson band conjoined on costa and in submedian fold to the antemedial band, which expands towards costa and is strongly excurved below it; a black spot in end of cell and two on discocellulars; a postmedial crimson band excurved from costa to submedian fold where it is strongly angled inwards, then bent outwards to inner margin; a terminal band expanding into a large patch on costal area, dentate inwards and almost joining the postmedial line, expanding again at vein 3 and ending at vein 1. Hind wing crimson, with the cilia white. Underside of fore wing with large blackish discal patch.

Ab. 1 *moupinensis*. ♂ with the crimson replaced by orange, ♀ by orange-yellow.—Moupin.

Hab. CENTR. CHINA, 1 ♀, Kiukiang, Changyang, Ningpo, Tatsien-lo, Moupin. Exp. 48 millim.—Type † in Coll. Leech.

671. *Chionæma dudgeoni*. (Plate XXVII. fig. 5.)

Cyana dudgeoni, Hmps. Trans. Ent. Soc. 1895, p. 293 (part); id. Moths Ind. iv. p. 492; id. J. Bomb. Nat. Hist. Soc. xi. p. 296.

White; palpi yellowish, brown at tips; antennæ yellow; tegulæ edged with scarlet; a scarlet band on thorax and patagia, and a spot on metathorax; tibiæ banded with brown, the tarsi with orange; abdomen dorsally tinged with crimson towards extremity. Fore wing with short subbasal scarlet line; ante- and postmedial rather oblique lines, the former slightly bent inwards to costa, the latter slightly sinuous; a terminal line running just round the apex. Hind wing crimson, the costal area and cilia white.

The costal fringe and lobe of male very minute.

Hab. SIKHIM (*Dudgeon*), 1 ♂ type; ASSAM, Khâsis, 1 ♀. Exp., ♂ 26, ♀ 34 millim.

672. *Chionæma subornata*.

Bizone subornata, Wlk. ii. 550 (1854); Moore, Lep. Ceyl. ii. p. 60, pl. 103. f. 4; Hmps. Moths Ind. ii. p. 58; Kirby, Cat. Het. p. 302.

Bizone linatula, Swinh. Trans. Ent. Soc. 1891, p. 135.

♀. White; palpi and antennæ orange; legs banded with orange; tegulæ edged with scarlet; patagia, meso- and metathorax with scarlet spots; abdomen dorsally tinged with crimson towards extremity. Fore wing with subbasal scarlet line angled on median nervure and not reaching inner margin; the antemedial line oblique, bent inwards to costa and slightly incurved below cell; a black point in end of cell and two on discocellulars; the postmedial line oblique, angled inwards at vein 5 and bent outwards towards costa;

a subterminal line bent inwards below apex and becoming terminal at vein 2. Hind wing slightly tinged with crimson except the costal area and cilia.

Ab. 1. *linatula*. Fore wing with the lines and spots stronger, the antemedial line with a very fine edging of black scales on inner side, the postmedial line on outer side; hind wing deeper crimson.—Khandāla, Ceylon.

Hab. BOMBAY, Khandāla (*Swinhoe*), 1 ♀, type *linatula*; CEYLON (*Templeton*), 1 ♀ type, Ramboda (*Green*), 1 ♀; BORNEO, 1 ♀. Exp. 36 millim.

673. *Chionæma pitana*. (Plate XXVII. fig. 6.)

Bizone pitana, Moore, Lep. E. I. C. p. 305 (1859); Kirby, Cat. Het. p. 303.

♀. Pure white; palpi brownish; tegulæ edged with scarlet; patagia and mesothorax with scarlet spots; legs marked with brown. Fore wing with short curved subbasal scarlet line; the antemedial line strongly excurved below costa and incurved below cell; a black-brown spot at middle of cell, one on median nervure before lower angle, and one at upper angle; the postmedial line minutely waved and bent inwards to costa. Underside of fore wing with diffused brown discal patch.

Hab. JAVA (*Horsfield*), 1 ♀ type, Arjuno (*Doherty*), 1 ♀. Exp. 36 millim.

674. *Chionæma coccinea*.

Bizone coccinea, Moore, P. Z. S. 1878, p. 28, pl. 3. f. 14; Hmps. Moths Ind. ii. p. 61; Kirby, Cat. Het. p. 301.

♂. Crimson; palpi, head, and legs orange-yellow; vertex of head, tegulæ, and front of thorax and patagia with yellow patches, sometimes becoming white. Fore wing with slight yellow or white mark at base; an antemedial black line incurved to costa, and joined at costa and inner margin by slight oblique black streaks above and below a large yellowish patch which sometimes has a white centre; a black spot in end of cell and two on discocellulars on a rounded yellow patch connected with inner margin by an obscure line; a strong postmedial black line with minutely dentate outer edge bent outwards just below costa, which it does not reach; the lobe small. Hind wing crimson; cilia of both wings yellowish.

♀. Head white, antennæ yellow; tegulæ, patagia, meso- and metathorax with white patches. Fore wing white; a subbasal scarlet band bent outwards at costa and inner margin, on the former joining the antemedial scarlet band, which has a curved black line on its inner side; a black spot in end of cell and one on discocellulars; a postmedial scarlet band expanding below middle and with nearly regular black line on its outer side; a terminal band running round the apex to the postmedial line, its inner edge minutely waved.

Ab. 1. All the red markings replaced by yellow.—Bhāmo.

Hab. SIKHIM, Moore Coll., 1 ♂ type, (*Lulderdale*) 1 ♂, 2 ♀, (*Dudgeon*) 1 ♂; BURMA, Bhāmo (*Fca*), 2 ♂, 3 ♀; ANDAMANS, 1 ♀. Exp., ♂ 36, ♀ 34–40 millim.

*675. *Chionæma determinata*. (Plate XXVII. fig. 7.)

Bizone determinata, Wlk. Journ. Linn. Soc., Zool. vi. p. 120 (1862);
Swinh. Cat. Het. Mus. Oxon. p. 110; Kirby, Cat. Het. p. 303.

♀. White; palpi, antennæ, edges of tegulæ, bands on thorax and patagia, a patch on metathorax, and bands on tibiæ and tarsi yellow. Fore wing with oblique yellow subbasal line not reaching inner margin and expanding on costa; an oblique antemedial yellow band edged by a slightly sinuous black line on inner side; a black spot in end of cell and one on discocellulars; a slightly curved postmedial yellow band, edged by a strong black line on outer side; a terminal yellow band running round the apex and with minutely dentate inner edge. Hind wing pale yellow, whitish towards base.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♀ type † in Mus. Oxon.
Exp. 36 millim.

676. *Chionæma bianca*. (Plate XXVII. fig. 8.)

Bizone bianca, Wlk. vii. 1684 (1856); Hmps. Moths Ind. ii. p. 58;
Swinh. Cat. Het. Mus. Oxon. i. p. 110; Kirby, Cat. Het. p. 301.

♂. White; palpi yellow and brown; antennæ, edges of tegulæ, a band on thorax and patagia, and a patch on metathorax crimson; legs white, marked with yellow; abdomen dorsally tinged with crimson. Fore wing with waved scarlet subbasal band bent outwards above inner margin; an antemedial band expanding slightly towards inner margin and with waved black line on its inner side; a black spot in end of cell and two on discocellulars; a sinuous postmedial scarlet band expanding towards costa and below middle, with a black line on its inner side; a terminal band with minutely dentate inner edge; the lobe well developed. Hind wing and underside crimson.

♀. Fore wing with one instead of two discoidal black spots; the terminal band narrower, with its inner edge regular.

Hab. SIKHIM, 2 ♂ (*Dudgeon*); ASSAM; CACHAR; BURMA; PENANG. *Exp.*, ♂ 36, ♀ 49 millim. Type † in Mus. Oxon.

Subsp. 1. Fore wing with the terminal band running round the apex to the postmedial line. Hind wing white, the terminal area tinged with crimson.

Hab. BORNEO, Kuching, 1 ♂; JAVA. *Exp.* 30 millim.

677. *Chionæma amatura*.

Bizone amatura, Wlk. P. Z. S. 1863, p. 167; Saalmüller, Lep. Madag. i. p. 161, pl. 6. f. 82; Kirby, Cat. Het. p. 303.

Bizone hova, Guen. Vinson's Voy. Mad., Ann. F, p. 42 (1865).

♂. Pure white; palpi, antennæ, and edges of tegulæ scarlet; legs banded with scarlet. Fore wing with curved subbasal scarlet line from costa to vein 1; the costal edge scarlet to the antemedial

line, which is incurved from below costa to vein 1; a black spot in end of cell and two conjoined discoidal spots; the postmedial scarlet line straight from costa to vein 4, then incurved and minutely waved, and with a black point beyond it below costa; a terminal series of scarlet spots running round the apex to postmedial line.

Hab. MADAGASCAR, Antananarivo, 1 ♂ type, (*R. Joy*) 2 ♂. *Exp.* 24 millim.

678. *Chionæma saalmuelleri*. (Plate XXVII. fig. 18.)

Bizone saalmuelleri, Butl. Cist. Ent. iii. p. 3 (1882); Kirby, Cat. Het. p. 303.

♀. Pure white; palpi and antennæ orange-red; the edge of tegulæ, spots on mesothorax and patagia scarlet; legs orange-red and white. Fore wing with subbasal scarlet spot on costa and black point on median nervure; an antemedial scarlet line obtusely angled below costa; a black point at middle of cell and small discoidal lunule; the postmedial line oblique, slightly incurved beyond cell and excurved below it; some slight scarlet marks at apex.

Hab. MADAGASCAR, Betsileo (*Cowan*), 2 ♀, type. *Exp.* 48–50 millim.

*679. *Chionæma rubristriga*. (Plate XXVII. fig. 27.)

Bizone rubristriga, Holland, Psyche, vi. p. 399 (1893).

♂. Pure white; palpi, lower part of frons, fore legs, mid and hind tibiæ and tarsi scarlet. Fore wing with scarlet spot at base of costa; a black point below base of cell; a somewhat oblique slightly sinuous antemedial scarlet line; a small black spot in middle of cell and an oblique black discoidal striga; an oblique scarlet postmedial line slightly angled outwards beyond lower angle of cell.

Hab. W. AFRICA, Ogové R., type † ♂ in Coll. Holland. *Exp.* 20 millim.

680. *Chionæma pretoriæ*. (Plate XXVII. fig. 24.)

Bizone pretoriæ, Distant, A. M. N. II. (6) xx. p. 198 (1897).

♂. Pure white; palpi, frons, antennæ, and spots on tegulæ, patagia, meso- and metathorax scarlet; legs banded with orange; abdomen with segmental black bands. Fore wing with short curved subbasal scarlet line; the costa scarlet to the antemedial line, which is oblique and slightly excurved at middle; a black spot at middle of cell and black discoidal bar; an oblique slightly curved scarlet postmedial line; three small subapical scarlet spots.

The lobe and costal fringe minute.

Hab. TRANSVAAL; NATAL, Estcourt (*Hutchinson*), 5 ♂. *Exp.* 34 millim.

681. *Chionæma delicata*. (Plate XXVII. fig. 28.)

Bizone delicata, Wlk. ii. 550 (1854); Kirby, Cat. Het. p. 303.

♂. White; palpi blackish above; tegulæ, meso- and metathorax with scarlet spots; legs marked with orange. Fore wing with short subbasal scarlet line; the antemedial line bent inwards to costa, then slightly sinuous; a black point in end of cell and striga-shaped discoidal spot; the postmedial line oblique and very slightly angled at vein 3; some scarlet marks just below apex.

♀. Fore wing with the scarlet lines stronger; the 1st black spot placed at middle of cell.

Hab. S. LEONE, 1 ♂, 1 ♀ type. *Exp.*, ♂ 34, ♀ 36 millim.

682. *Chionæma harterti*. (Plate XXVII. fig. 9.)

Bizone harterti, Elwes, P. Z. S. 1890, p. 398; Hmps. Moths Ind. ii. p. 61; Kirby, Cat. Het. p. 304.

♂. White; palpi yellow, dark at tips; antennæ yellow; tegulæ edged with yellow; patagia with yellow tips; fore legs fuscous in front. Fore wing with short orange-yellow subbasal line; a narrow orange fascia on costa to the postmedial line; the antemedial line erect and minutely waved; a black point in end of cell and one at upper angle; the postmedial orange line slightly excurved beyond cell and incurved below vein 4; a terminal line running round the apex.

The fringe on costa and lobe of male very minute.

♀. Fore wing without the yellow fascia on costa; a minute black point just above median nervure near lower angle of cell.

Hab. HONGKONG (*J. J. Walker*), 1 ♂; UP. ASSAM (*Hartert*), 1 ♀; SINGAPORE (*Pryer*). *Exp.*, ♂ 20, ♀ 26 millim. Type† in Coll. Elwes.

683. *Chionæma africana*. (Plate XXVII. fig. 11.)

Bizone africana, Holland, Psyche, vi. p. 399 (1893).

Bizone porrima, Holland, Psyche, vi. p. 399 (1893).

Pure white; palpi brownish at tips; legs marked with brown. Fore wing with subbasal brown points on costa and median nervure; an obliquely curved antemedial line angled inwards below cell, with a point just beyond it in cell and discoidal point; an oblique postmedial line nearly straight from costa to vein 5, bent outwards to vein 4, then oblique to tornus; traces of one or two black points on termen below apex.

Hab. W. AFRICA, Ogové R., 1 ♀ co-type. *Exp.*, ♂ 18, ♀ 20-24 millim. Type† and type† *porrima* in Coll. Holland.

684. *Chionæma marshalli*, n. sp. (Plate XXVII. fig. 26.)

♂. Pure white; palpi black; legs black and white. Fore wing with blackish mark on base of costa and subbasal black point on

median nervure; the antemedial black line angled below costa, obsolete below median nervure and represented by two points above inner margin; a black spot in middle of cell and one on discocellulars; the postmedial line represented by an irregular mark on costa and a strongly excurved series of points; the apical area suffused with black down to vein 2; underside suffused with black, the margins white.

Hab. NATAL, Malvern (*Marshall*), 1 ♂ type, Estcourt (*Hutchinson*), 1 ♂. *Exp.* 26 millim.

685. *Chionæma trigutta*. (Plate XXVII. fig. 12.)

Isine trigutta, Wlk. ii. 545 (1854); Kirby, Cat. Het. p. 429.

Euproctis atrigutta, Wlk. Trans. Ent. Soc. (3) i. p. 77 (1862); Kirby, Cat. Het. p. 444.

♂. Pure white; palpi scarlet; fore and mid legs banded with scarlet. Fore wing with subbasal black point; a point in cell towards extremity and one on discocellulars; one to three brown subterminal points below apex.

The lobe and costal fringe very minute.

Hab. S. LEONE, 1 ♀ type, (*Clements*) 1 ♂; NIGER, Sapele (*Sampson*), 2 ♀. *Exp.* 22 millim. Type † *atrigutta* in Mus. Oxon.

686. *Chionæma infantula*, n. sp. (Plate XXVII. fig. 10.)

Pure white; palpi, antennæ, and legs yellowish. Fore wing with the basal half of costal edge yellowish; a blackish point in cell towards extremity and one on discocellulars.

The lobe and costal fringe of male very minute.

Ab. 1. Fore wing without trace of the black points.—St. Aignan.

Hab. BORNEO, Pulo Laut (*Doherty*), 2 ♂, 1 ♀ type; LOUISIADES, St. Aignan (*Meek*), 1 ♂. *Exp.* 22 millim.

687. *Chionæma rejecta*. (Plate XXVII. fig. 22.)

Setina rejecta, Wlk. ii. 521 (1854); Kirby, Cat. Het. p. 358.

Ochreous yellow. Fore wing with the costa rather deeper ochreous; black points at middle of cell and on discocellulars.

Hab. S. LEONE (*Clements*), 1 ♂; NATAL, 1 ♂ type, Karkloof (*Marshall*), 1 ♂, 1 ♀. *Exp.* 28 millim.

688. *Chionæma sanguinea*.

Calligenia sanguinea, Motsch. Ét. Ent. i. p. 63 (1852); Brem. & Grey, Schmett. N. China, p. 14 (1853); Kirby, Cat. Het. p. 302.

Bizone cruenta, Leech, Entom. xxiii. p. 49 (1890); Kirby, Cat. Het. p. 303. *Bizone dubenskii*, Alph. Rom. Mém. vi. p. 11, pl. i. f. 5 (1892).

♂. White; palpi and antennæ brownish; shoulders and tegulæ tinged with scarlet; fore and mid legs and hind tarsi marked with brown. Fore wing with short subbasal scarlet line; a streak on

costa to the antemedial line, which is oblique to median nervure, where it is conjoined to a short streak in cell, then erect; black spots at angles of cell or point at lower angle; the postmedial line very oblique from costa to vein 4, then erect to tornus; a terminal line running round the apex to the postmedial line just below costa. Hind wing crimson, white at base, the cilia yellowish. Underside of fore wing fuscous, with crimson edges.

The costal fringe and lobe of male very minute.

Ab. 1. *cruenta*. Fore wing with the crimson markings much narrower.

Ab. 2. Much smaller, 24 millim. Fore wing with the underside crimson, with a little fuscous in cell. Hind wing uniform crimson. —*Formosa*.

♀. Fore wing without the red streak in cell; the terminal line not running round the apex. Hind wing with more white on basal area.

Hab. CHINA, 1 ♀, Pekin, Changyang; FORMOSA (*Hobson*), 1 ♂, 1 ♀. *Exp.* 32-34 millim.

689. *Chionæma hamata*. (Plate XXVII. fig. 25.)

Bizone hamata, Wlk. ii. 549 (1854); Kirby, Cat. Het. p. 302.

Bizone emergens, Wlk. xxxi. 261 (1864); Kirby, Cat. Het. p. 302.

♂. White; palpi and antennæ brown; tegulæ, a band on thorax and patagia, and a spot on metathorax scarlet; fore tibiæ and tarsi banded with brown; abdomen dorsally tinged with scarlet towards extremity. Fore wing with subbasal scarlet band expanding on costa; an antemedial band angled outwards to the red spot in end of cell, angled inwards in submedian fold, then curved; two discoidal black spots; a red spot on the costal fringe, which is well developed; the postmedial band commencing in a spot just below costa, strongly angled inwards below the costal fringe, then straight to tornus; a scarlet terminal band. Hind wing pale scarlet, the cilia white.

♀. Abdomen white; fore wing with the antemedial band ex-curved in cell; a single black spot on discocellulars; the postmedial band less bent outwards to costa.

Hab. JAPAN, Nikko, 1 ♂, Yokohama (*Jonas*), 3 ♂, 1 ♀; CHINA, Shanghai (*Fortune*), 5 ♂, type; HONGKONG (*Bouring*), 1 ♂, type *emergens*; CHUSAN I. (*J. J. Walker*), 1 ♂. *Exp.*, ♂ 32, ♀ 40 millim.

690. *Chionæma inconclusa*. (Plate XXVII. fig. 29.)

Bizone inconclusa, Wlk. Journ. Linn. Soc. vi. p. 120 (1862); Kirby, Cat. Het. p. 302.

♂. White; palpi and antennæ orange-red; tegulæ and patagia edged with orange-red; orange spots on meso- and metathorax; legs banded with orange; abdomen dorsally tinged with orange

towards extremity. Fore wing with curved subbasal orange-red band, attenuate and bent outwards at extremity and not reaching inner margin; the costal edge orange to the antemedial line, which is bent inwards to costa, incurved below cell, and with a short fascia from it in cell; two discoidal black points; a yellow spot on the costal fringe; the postmedial band bent outwards to costa and excurved to submedian fold where it is angled inwards; the terminal band with dentate inner edge. Hind wing slightly tinged with yellow.

The lobe large, and the costal fringe rather strongly developed.

♀. Abdomen dorsally orange; fore wing with the postmedial line not bent outwards to costa; hind wing orange, with the cilia white.

Ab. 1. Fore wing with the subbasal and antemedial line nearer together and connected by a fascia below cell.

Hab. BORNEO, Sandakan, 1 ♂, 1 ♀, Baram (*Pryer*), 1 ♀, Sarawak (*Wallace*), 4 ♂, 1 ♀ type. *Exp.*, ♂ 32, ♀ 34 millim.

691. *Chionæma alba*. (Plate XXVII. fig. 21.)

Bizone alba, Moore, P. Z. S. 1878, p. 28; Kirby, Cat. Het. p. 302.

♂. White; palpi, antennæ, and bands on tarsi blackish. Fore wing with scarlet subbasal point; a scarlet streak on basal half of costa; a black spot at upper angle of cell. Underside of fore wing scarlet, with the inner area white; hind wing with the costa scarlet.

The lobe and fringe on costa hardly visible.

Hab. N. CHINA, Moore Coll., 1 ♂ type. *Exp.* 24 millim.

Subsp. 1. Fore wing with the termen tinged with scarlet running just round the apex; hind wing with the apex tinged with scarlet; underside of fore wing black, with the costa and termen scarlet, the latter with dentate inner edge.

Hab. CHUSAN (*J. J. Walker*), 1 ♂. *Exp.* 28 millim.

Subsp. 2. Fore wing with the apical part of costal area and termen more broadly tinged with scarlet; hind wing with the terminal half suffused with scarlet.

Hab. COREA, Gensan, 1 ♂ in Coll. Staudinger. *Exp.* 28 millim.

*692. *Chionæma torrida*. (Plate XXVII. fig. 20.)

Cabarda torrida, Holland, Psyche, vi. p. 399 (1893).

♀. White; antennæ brownish; patagia with brown spots; legs slightly marked with brown. Fore wing with brownish basal spot below the cell; the costa brown towards base, with brownish subbasal and antemedial spots; an antemedial patch below the cell, with a point above it in the cell; two small longitudinally placed round spots in end of cell; the postmedial line obsolescent towards

costa, excurved beyond lower angle of cell, then expanding into a patch; a straight subterminal band from just below apex to termen above tornus. Hind wing tinged with brown except at base and on costal area.

Hab. W. AFRICA, Benita, type † ♀ in Coll. Holland. *Exp.* 22 millim.

693. *Chionæma gelida*. (Plate XXVII. fig. 15.)

Doliche gelida, Wlk. ii. 529 (1854); Hmps. Moths Ind. ii. p. 60; Kirby, Cat. Het. p. 300.

Head, thorax, and abdomen white, the last with the basal half dorsally tinged with pink; third joint of palpi and antennæ brownish; legs banded with orange. Fore wing white; the basal area with diffused blackish marks; oblique olive-yellow ante- and postmedial lines, with the area between them below the cell olive-yellow; a diffused blackish fascia from middle of cell to terminal band, with an obscure black annulus on it in cell, another on median nervure, and one on discocellulars; a subterminal black spot below vein 4; a terminal purplish-red band not reaching costa and with irregularly dentate inner edge; cilia brownish. Hind wing purplish red.

Hab. N.W. HIMALAYAS, Kangra (*Hocking*), 1 ♂; SIKHIM, 2 ♂; ASSAM, Khâsis, 1 ♂, 1 ♀ type. *Exp.* 32-36 millim.

694. *Chionæma gazella*.

Bizone gazella, Moore, P. Z. S. 1872, p. 572, pl. 33. f. 4; Hmps. Moths Ind. ii. p. 61; Kirby, Cat. Het. p. 303.

♂. Pure white; palpi blackish above; antennæ brownish; tegulæ and patagia mostly orange-yellow; an orange spot on mesothorax; fore legs and tarsi banded with brown. Fore wing with short almost basal orange line conjoined on costa and in submedian fold to the curved subbasal band, which is connected by a short fascia below the cell with the antemedial band, which again is connected by a fascia below costa with the large discoidal annulus, from which a line runs to costa and another to inner margin strongly angled inwards and conjoined above vein 1 to the antemedial line; a terminal band with dentate inner edge developed into a wedge-shaped patch below apex, connected with the postmedial line and angled inwards almost to the postmedial line below vein 2.

The lobe and fringe on costa very minute.

♀. With a large round orange spot on discocellulars and the annulus incomplete.

Hab. N.W. HIMALAYAS, Kangra (*Hocking*), 3 ♂, 2 ♀. *Exp.*, ♂ 36, ♀ 48 millim.

Genus **EUROSIA**, nov.Type, *E. trimaculata*.

Proboscis well developed; palpi porrect, not reaching beyond frons, which is rounded; antennæ usually with bristles and cilia. Fore wing narrow, the costa slightly arched, the termen obliquely rounded; vein 3 from close to angle of cell; 5 from or from well above angle; 6 from or from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, oblique. Hind wing with vein 2 from long before angle of cell; 3, 4 coincident, rarely strongly stalked; 5 from well above angle; 6, 7 strongly stalked; 8 from beyond middle of cell.

SECT. I. Antennæ of male bipectinate.

695. *Eurosia trimaculata*.

Setinochroa trimaculatus, Hmps. Ill. Het. ix. p. 85, pl. 157. ff. 27, 28 (1893); id. Moths Ind. ii. p. 120.

♂. Head and thorax fulvous yellow; sides of frons, antennæ, tips of patagia, patches on meso- and metathorax and fore legs blackish; abdomen fuscous above, yellowish below. Fore wing fuscous, with black spots in cell near base, at middle, and on discocellulars. Hind wing fuscous.

Fig. 230.—*Eurosia trimaculata*, ♂. $\frac{3}{4}$.

♀. Fore wing yellow, the spots more prominent, an additional spot on middle of termen; an indistinct fuscous antemedial line angled below costa; a postmedial line strongly excurved from below costa to vein 3; hind wing with the cilia yellowish white.

Hab. CEYLON, Nawalapittia (Green), 1 ♂, 2 ♀, type. *Exp.*, ♂ 18, ♀ 20 millim.

SECT. II. Antennæ of male with a corneous tooth at one-sixth from base, the shaft strongly curved just beyond it.

696. *Eurosia accepta*.

Setina accepta, Butl. Trans. Ent. Soc. 1877, p. 369; Kirby, Cat. Het. p. 358.

♂. Fulvous orange; palpi, frons, pectus, and abdomen except anal tuft fuscous; fore tibiae and tarsi black on outer side. Fore wing with the costal edge streaked with black towards base; underside with the outer half strongly suffused with fuscous to near termen except on costal area; underside of hind wing with diffused fuscous subterminal patch from below costa to vein 1.

Fig. 231.—*Eurosia accepta*, ♂. $\frac{1}{2}$.

♀. Underside of fore wing with slight fuscous suffusion; hind wing without fuscous patch.

Fore wing with vein 6 from below angle of cell.

Hab. BORNEO, Sarawak (*Wallace*), 2 ♀, type; SANGIR (*Doherty*), 1 ♂, 1 ♀. *Exp.* 18–22 millim.

SECT. III. Antennæ of male ciliated.

A. Fore wing white.

a. Fore wing with antemedial line and medial band... *lineata*.

b. Fore wing without antemedial line or medial band.

*a*¹. Fore wing with subterminal and terminal series of black points *punctitermia* (♀).

*b*¹. Fore wing with subterminal points, the costa and cilia towards apex blackish *melanopera* (♀).

B. Fore wing grey.

a. Fore wing with black discoidal spot *grisea*.

b. Fore wing with fuscous discoidal annulus *annulata*.

C. Fore wing fulvous yellow..... *metaphæola* (♀).

697. *Eurosia lineata*, n. sp. (Plate XXVII. fig. 19.)

♀. White; palpi, frons, and fore and mid tibiæ and tarsi blackish. Fore wing with antemedial black line from costa to submedian fold, strongly angled in cell; a medial fuscous band with black line on its inner edge, angled outwards on subcostal and median nervures and inwards in submedian fold, and not reaching inner margin; black points at the angles of cell; the postmedial line bent outwards and angled at veins 6 and 4, and with a black patch on costa beyond it; a terminal series of points. Hind wing slightly tinged with fuscous.

Hab. CAPE COLONY, Transkei (*Miss F. Barrett*), 1 ♀ type. *Exp.* 20 millim.

698. *Eurosia punctitermia*, n. sp. (Plate XXVIII. fig. 9.)

♂. White with a very slight pinkish tinge. Fore femora and tarsi striped with black. Fore wing with the costal edge streaked with black towards base; black spots on and below costa towards apex and some black points on termen, the one at tornus larger and those at middle large and conjoined. Hind wing whiter, with the termen tinged with fuscous towards apex. Underside of fore wing suffused with fuscous towards costa and termen.

Fore wing with vein 6 from angle of cell.

Hab. BALI (*Doherty*), 1 ♀ type. *Exp.* 12 millim.

699. *Eurosia melanopera*, n. sp. (Plate XXVIII. fig. 10.)

♀. Pure white; palpi, frons, antennæ except at base, and legs above brown. Fore wing with curved series of minute dark brown points from costa beyond middle to tornus; minute subapical points on costa and termen; the costa and cilia towards apex black-brown.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♀ type. *Exp.* 12 millim.

700. *Eurosia grisea*.

Narasodes grisea, Hmps. Ill. Het. ix. p. 81, pl. 158. f. 2 (1893); id. Moths Ind. ii. p. 91.

♂. Head, thorax, and abdomen grey tinged with fuscous; anal tuft yellowish. Fore wing



Fig. 232.—*Eurosia grisea*, ♂. 2.

silvery grey, slightly tinged with fuscous; the antemedial line represented by three obliquely placed black points towards costa, angled in cell, then erect; a prominent black discoidal spot; the postmedial line black, very oblique from costa to vein 6, then punctiform and ending at tornus; some whitish marks on termen and three black points towards apex.

Hab. CEYLON (*Green*), 1 ♂ type. *Exp.* 16 millim.

701. *Eurosia annulata*, n. sp. (Plate XXVIII. fig. 11.)

♀. Grey tinged with fuscous and brown; abdomen fuscous. Fore wing with dark antemedial line oblique towards costa, then erect and sinuous; a minute annulus in middle of cell and larger one on discocellulars; a dentate subterminal line strongly bent inwards to costa and angled outwards nearly to termen on veins 6 and 4. Hind wing fuscous.

Hab. CALCUTTA (*Atkinson*), 1 ♀ type. *Exp.* 14 millim.

702. *Eurosia metaphæola*, n. sp. (Plate XXVIII. fig. 1.)

♀. Head, thorax, and fore wing fulvous orange; abdomen and hind wing fuscous, the latter with small yellow apical patch; pectus, fore and mid legs fuscous; hind legs and ventral surface of abdomen yellow. Underside of fore wing with the costa towards apex, the termen and cilia yellow. Hind wing with the costal area and cilia towards apex yellow.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♀; CELEBES (*Doherty*), 1 ♀; SANGIR (*Doherty*), 3 ♀, type. *Exp.* 20 millim.

Genus LICNOPTERA.

	Type.
<i>Licnoptera</i> , Meyr. Trans. Ent. Soc. 1889, p. 460	<i>crocodora</i> .
<i>Monotropia</i> , Kirby, Cat. Het. p. 307 (1893).....	<i>crocodora</i> .
<i>Goniosema</i> , Turner, Trans. R. Soc. S. Austr. 1899, p. 19.....	<i>anguliscrita</i> .

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; tibiae with the spurs rather long. Fore wing rather narrow, the costa arched at base, then nearly straight; vein 2 from well beyond middle of cell, oblique; 3, 4 stalked; 5 absent; 6 from below upper angle; 7, 8, and 10 stalked, 9 absent; 11 free, oblique. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident or stalked; 5 from close to middle of discocellulars; 6, 7 shortly stalked; 8 from middle of cell.

SECT. I. (*Licnoptera*). Antennæ of male ciliated; hind wing with the costal area greatly expanded, the apex truncate, veins 6, 7 diverging widely from their fork, the inner margin with a fold with a tuft of long hair in it.

*703. *Licnoptera crocodora*.

Licnoptera crocodora, Meyr. Trans. Ent. Soc. 1889, p. 461; Kirby, Cat. Het. pp. 307, 342.

♂. Head and tegulæ golden yellow; palpi and antennæ brownish; thorax purple, with yellow patch on mesothorax; legs whitish; fore tibiæ and tarsi pure white with fuscous rings; (abdomen wanting). Fore wing golden yellow; the base purple, with minutely waved oblique outer edge; the terminal area purple-brown, with minutely waved and curved black line on its inner side,

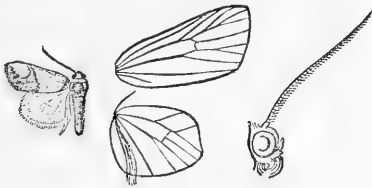


Fig. 233.—*Licnoptera crocodora*, ♂. 1.

and a large yellow patch on it from apex to vein 4 edged by a minutely waved black line; a terminal white line interrupted in places. Hind wing whitish, with the terminal area from vein 3 to tornus broadly suffused with pale brown; the fringe of hair on inner area fulvous.

Hab. N. GUINEA (*Sayer*), type † ♂ in Coll. *Meyrick*. *Exp.* 20 millim.

SECT. II. (*Goniosema*). Antennæ of male bipectinate; hind wing normal.

*704. *Licnoptera anguliscrupta*. (Plate XXVIII. fig. 2.)

Chiriphe anguliscrupta, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1879 (1890); Kirby, Cat. Het. p. 348.

♀. Head and thorax yellowish white; palpi and antennæ black, the latter whitish towards tips; thorax tinged with black and with a black band behind tegulæ; legs with fuscous streaks; abdomen fuscous, with fulvous anal tuft. Fore wing yellowish white; a black patch at base of costa produced to points on lower and outer sides; the antemedial line represented by two oblique conjoined spots below costa, a strongly incurved mark in submedian interspace and a spot above inner margin; a medial line strongly excurved in cell and incurved in submedian interspace, and conjoined on costal area to two spots on its outer side forming part of a maculate line which is

strongly bent outwards at vein 6 and angled outwards at veins 4 and 1 and inwards in submedian fold; the postmedial line angled outwards below costa and inwards at vein 4, then oblique to near tornus and interrupted in submedian fold; an irregularly dentate line from costa before apex to termen at vein 2; some black marks on termen. Hind wing fuscous; veins 3, 4 stalked.

Hab. QUEENSLAND, Brisbane (*Lucas*), Colls. Turner and Meyrick. *Exp.* 18 millim.

Genus **CHRYSTALLACTIS**, nov.

Type, *C. aureorubra*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of female ciliated; tibiæ with the spurs moderate; abdomen with the anal tuft large. Fore wing rather narrow, the costa arched, the apex rounded; vein 2 from well beyond middle of cell; 3 from well before angle; 4, 5 coincident; 6 from well below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

On left-hand side of type, vein 10 is broken off at middle and stalked with 7, 8, 9.

705. *Chrysallactis aureorubra*, n. sp.

♀. Head, tegulæ, and mesothorax golden yellow; palpi except 3rd joint, and antennæ brown; patagia and metathorax purple-brown; legs ochreous; abdomen fuscous, with the anal tuft grey.

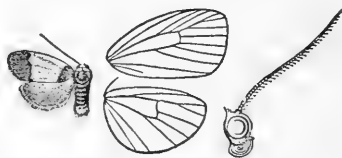


Fig. 234.—*Chrysallactis aureorubra*, ♀. 1.

Fore wing with the basal area cupreous brown with purple reflections; the medial half of wing golden yellow; the terminal area cupreous brown suffused with purple and defined on inner side by a darker line which is slightly sinuous and angled in discal fold. Hind wing pale red-brown, the costal area whitish.

Hab. LOUISIANAS, Rossel I. (*Meek*), 1 ♀ type. *Exp.* 22 millim.

Genus **BRACHIOSIA**, nov.

Type, *B. castancola*.

Proboscis fully developed; palpi porrect, slight, not reaching as far as frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate. Fore wing short and broad, the costa arched; vein 2 from middle of cell, oblique; 3 from close to angle; 5 from well above angle, 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, oblique. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident; 5 from above angle, curved; 6, 7 stalked almost to termen; 8 from middle of cell.

706. *Brachiosia castaneola*, n. sp.

♂. Head and thorax chestnut-brown; pectus and fore legs in front fuscous; abdomen fuscous with the anal tuft ochreous. Fore wing chestnut-brown, with diffused purplish-fuscous sub-terminal band not reaching costa or inner margin and wider towards costa. Hind wing with the costal and distal areas pale chestnut, the basal, inner, and terminal areas

Fig. 235.—*Brachiosia castaneola*, ♂. $\frac{1}{2}$.

fuscous. Underside fuscous; fore wing with the costa towards apex and cilia at apex of hind wing yellow.

Hab. SANGIR (*Doherty*), 1 ♂ type. *Exp.* 20 millim.

Genus *METEUGOA*, nov.

Type, *M. ochrivena*.

Proboscis fully developed; palpi obliquely upturned and reaching vertex of head; frons with a conical prominence; antennæ of male ciliated; tibiæ with the spurs moderate; abdomen elongate. Fore wing narrow, somewhat lanceolate; vein 2 from middle of cell; 3 from long before angle; 5 from just above angle; 6 from just below upper angle; 7, 8 and 9, 10 stalked; 11 free. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from just above angle; 6, 7 coincident; 8 from close to end of cell; the upper angle of cell extremely produced in male and the discocellulars highly angled.

- | | |
|---|---------------------|
| A. Fore wing without oblique medial line; hind wing with the veins towards end of cell ochreous in male..... | <i>ochrivena</i> . |
| B. Fore wing with oblique medial line; hind wing with the veins towards end of cell not ochreous in male..... | <i>obliquiata</i> . |

707. *Meteugoa ochrivena*.

Eugoa ochrivena, Hmps. J. Bomb. Nat. Hist. Soc. xi. p. 439 (1898).

♂. Head grey, with fuscous spot on vertex; thorax grey and

Fig. 236.—*Meteugoa ochrivena*, ♂. $\frac{3}{4}$.

fuscous; abdomen fuscous, greyish towards base and extremity. Fore wing grey-brown, slightly irrorated with fuscous; the costal area fuscous towards base; a short basal streak below the cell; antemedial spots in cell and on vein 1; a spot in middle of cell; a

broad diffused fuscous medial band almost intersected by a streak of the ground-colour in the cell; a discoidal spot; an interrupted diffused waved subterminal line, expanding into patches on costa and inner margin and angled at middle; a terminal series of spots; cilia ochreous and fuscous. Hind wing fuscous, the terminal half of median nervure, the base of veins arising from it, and the disco-cellulars ochreous; inner area ochreous towards base.

♀. Head yellowish; palpi and frons at sides black; thorax and abdomen fuscous. Fore wing pale ochreous brown thickly irrorated with dark brown; the costa streaked with blackish on basal half; black points on middle of costa, in middle of cell, and on disco-cellulars; an irregularly waved diffused submarginal fuscous line, expanding into a patch on costa and angled at middle; a terminal series of spots; cilia fuscous and ochreous. Hind wing fuscous; a pale patch on cilia below middle.

Hab. ASSAM, Khâsis, 1 ♂ type; BORNEO, Pulo Laut (*Doherty*), 1 ♀. *Exp.*, ♂ 22, ♀ 18 millim.

708. *Metengoa obliquiata*, n. sp. (Plate XXXIV. fig. 19.)

♂. Dull ochreous; a black spot above frons. Fore wing with the costal edge black at base; subbasal black streaks below costa, in cell, and submedian fold; an oblique antemedial line acutely angled below costa, excurved in submedian fold and with short streaks beyond it in cell and submedian fold; an oblique medial line slightly excurved below costa; some diffused black scales on disco-cellulars and from lower angle of cell to inner margin; a series of short irregular subterminal streaks, longer towards apex, the streaks above vein 5 and below 2 displaced inwards; a terminal series of spots. Hind wing tinged with fuscous, especially towards apex.

Hab. SINGAPORE (*H. N. Ridley*), 1 ♂ type. *Exp.* 24 millim.

Genus **HOLOCRASPEDUM.**

Holocraspedon, Hmps. Ill. Het. ix. p. 83 (1893)..... Type. *nigripuncta*.

Proboscis fully developed; palpi oblique, reaching to extremity of the large frontal tuft; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from beyond middle of cell; 3 from long before angle; 5 from just above angle; 6 from below upper angle; 7, 8 and 9, 10 stalked; 11 oblique. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell; the median nervure strongly pectinated above.

709. *Holocraspedum nigripuncta*.

Holocraspedon nigripuncta, Hmps. Ill. Het. ix. p. 84, pl. 158. f. 4 (1893); id. Moths Ind. ii. p. 102.

Yellowish white; palpi blackish at sides; patagia and mesothorax

with black spots. Fore wing with black spot at base of costa, the costal edge blackish to the antemedial line, which expands slightly at costa, is slightly angled outwards in cell, inwards in submedian fold, then oblique to join the postmedial line on inner margin; a prominent black spot in cell and a discoidal point; the postmedial line bent outwards between veins 6 and 4, then very oblique, some conjoined black streaks beyond it above middle running up to costa before apex and below middle, the lowest running to tornus; a terminal series of striae; cilia ochreous. Hind wing rather yellower; some

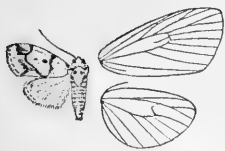


Fig. 237.—*Holocraspedum nigripuncta*, ♂. 1.
(From Moths Ind. vol. ii.)

slight fuscous suffusion on terminal area towards apex and a slight line on apical half of termen.

Hab. CEYLON, Nawalapittia (*Green*), 1 ♂ type. *Exp.* 22 millim.

Cocoon suspended by a cord and formed of network strengthened by two cross bands.

Genus **NUDOSIA**, nov.

Type, *N. fuscifusa*.

Proboscis aborted; palpi minute; antennae of male minutely serrate and ciliated, the basal joint rather long; hind tibiae with the medial spurs absent. Fore wing with vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6 from below upper angle; 7, 8 stalked, 9 absent, 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 coincident; 8 from towards end of cell.

710. *Nudosia fuscifusa*, n. sp.

♂. Pale orange-yellow; vertex of head whitish. Fore wing suffused with fuscous except at base, on costa, and the terminal area; the veins and the discal and submedian folds with fine yellow streaks, the outer edge of the fuscous area very irregular, truncate towards apex, slightly produced at vein 6 and produced to termen at vein 4 and tornus. Hind wing paler yellow, with

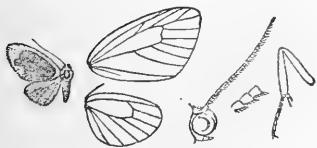


Fig. 238.—*Nudosia fuscifusa*, ♂. 1.

slight tinge of fuscous on disk.

Hab. PERU, Callanga (*Garlepp*), 1 ♂ type. *Exp.* 18 millim.

Genus **ACHRÖOSIA**, nov.

Type, *A. nuda*.

Proboscis and palpi minute; antennae bipectinate, with short branches ending in a bristle; tibiae with spurs minute, hind tibiae with the medial spurs absent. Fore wing short and broad; vein 2 from middle of cell; 3 from long

before angle; 5 from well above angle; 6 from long below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 coincident; 8 from towards end of cell.

711. *Achröosia nuda*, n. sp.



Fig. 239.—*Achröosia nuda*, ♂. 1.

♂. White; antennæ and legs tinged with yellow; wings semihyaline and very thinly scaled. Fore wing with the costa ochreous, brown towards base.

Hab. BRAZIL, Espirito Santo, 1 ♂ type. *Exp.* 18 millim.

Genus **COMACLA**.

<i>Comacla</i> , Wlk. xxxi. 276.....	Type. <i>simplex</i> .
<i>Vanessodes</i> , Grote, Trans. Am. Ent. Soc. iii. p. 176 (1871).....	<i>simplex</i> .

Palpi porrect, reaching well beyond the frons; tibiæ with the spurs rather short; abdomen clothed with rough hair. Fore wing with vein 2 from middle of cell, oblique; 3 from long before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 stalked or from angle of cell; 8 from middle of cell; wings very thinly scaled.

SECT. I. Proboscis aborted, minute.

A. Antennæ of male bipectinate, with rather long branches; fore wing with the apex rectangular.

712. *Comacla simplex*.

Pagara simplex, Wlk. vii. 1679 (1856); Kirby, Cat. Het. p. 362.

Comacla murina, Wlk. xxxi. 276 (1864).

Vanessodes clarus, Grote, Trans. Am. Ent. Soc. iii. p. 176 (1871); Kirby, Cat. Het. p. 237.



Fig. 240.—*Comacla simplex*, ♂. 1.

Pale brown; orange-yellow patches above and behind eyes and on shoulders; abdomen with the dorsal surface yellow. Fore wing with slight yellow mark at base.

Hab. U.S.A., Montana, 2 ♂, Grote Coll.; FLORIDA, 2 ♂, 2 ♀, type and type *murina*. *Exp.*, ♂ 22, ♀ 28 millim.

B. Antennæ of male minutely serrate and ciliated; fore wing with the apex rounded.

713. *Comacla senex*.

Bombyx senex, Hübn. Eur. Schmett. ii. ff. 236–237 (1804); Steph. Ill. Brit. Ent., Haust. ii. p. 84; Boisd. Icones, ii. p. 113, pl. 58. f. 10; Staud. Cat. p. 52; Kirby, Cat. Het. p. 360.

Nudaria rotunda, Haw. Lep. Brit. p. 156 (1809).

Pale yellowish brown; vertex of head with a fuscous spot. Fore wing with curved antemedial, medial, and postmedial series of fuscous striæ on the veins; a prominent discoidal spot; a series of points on the cilia. Hind wing paler, with slight discoidal lunule; traces of a subterminal series of striæ on the veins and of a series of points on the cilia.

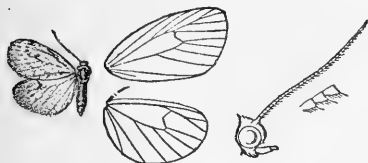


Fig. 241.—*Comacla senex*, ♂. †.

Hab. N., CENTR., and S. EUROPE, Zell. and Frey Colls.; N. ASIA. *Exp.* 22 millim.

Larva. Meyr. Brit. Lep. p. 30; Barrett, Lep. Brit. ii. p. 196, pl. 66. f. 1.

Dark grey with an ochreous tinge; hairs grey-black. Food-plant, Lichens; 8–5.

SECT. II. Proboscis fully developed; antennæ pectinate in both sexes.

*714. *Comacla juvenis*. (Plate XXVIII. fig. 3.)

Nudaria juvenis, Holland, Psyche, vi. p. 412 (1893).

♀. Fuscous brown; legs with blackish bands. Fore wing with subbasal black spots on costa and below cell; an irregularly waved antemedial line expanding into a black spot on costa and bent outwards below the cell; a black point in middle of cell and discoidal lunule; dentate medial and postmedial lines commencing as prominent bars on costa, then strongly bent outwards round the end of cell and again incurved; some diffused blackish subterminal spots bent outwards to termen at middle; a terminal series of striæ. Hind wing fuscous brown, with discoidal spot more prominent on underside.

Hab. W. AFRICA, Ogové R., type † ♀ in Coll. Holland. *Exp.* 22 millim.

Genus **POLIODULE**, nov.

Type, *P. xanthodelta*.

Proboscis aborted, minute; palpi porrect, reaching just beyond the frons; antennæ bipectinate, with moderate branches; hind tibiae with the medial spurs absent. Fore wing rather narrow, clothed with rough hair; vein 2 from beyond middle of cell; 3 from before angle; 4, 5 shortly stalked; 6, 7 stalked; 8, 9 absent; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from near angle; 5 from above angle; 6, 7 stalked; 8 from before middle of cell.

715. *Poliodula xanthodelta*.

Scoliacma xanthodelta, Lower, P. Linn. Soc. N. S. W. xxii. p. 10 (1897).

♂. Head and tegule orange-yellow; palpi at tips and antennæ except basal joint blackish; thorax yellowish grey; abdomen orange-yellow, with some dark hair at sides. Fore wing yellowish grey, thickly irrorated with fuscous; a pale orange-yellow mark at base of inner margin, a streak on base of costa,



Fig. 242.—*Poliodula xanthodelta*, ♂. 1.

and a triangular patch on middle of costa. Hind wing pale orange-yellow, with fuscous terminal band broad at costa narrowing to tornus.

♀ probably apterous.

Hab. N. S. WALES, Broken Hill (*Lower*), 3 ♂. *Exp.* 22 millim.

Genus **XANTHODULE**.

Type.

Xanthodule, Butl. Trans. Ent. Soc. 1886, p. 384 *semiochrea*.
Anestia, Meyr. Proc. Linn. Soc. N. S. W. (2) i. p. 745 (1886) *ombrophanes*.

Proboscis aborted; palpi porrect, not reaching as far as frons; antennæ of male bipectinate, with stiff branches; tibiæ with the spurs moderate. Fore wing with vein 2 from middle of cell, oblique; 3 from well before angle; 5 from angle; 6 from below upper angle; 7, 8 stalked; 9, 10 stalked; 11 free. Hind wing with vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

A. Fore wing with the ground-colour greyish white *ombrophanes*.
 B. Fore wing uniform brown *semiochrea*.

716. *Xanthodule ombrophanes*. (Plate XXVIII. fig. 4.)

Anestia ombrophanes, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 746 (1886); Kirby, Cat. Het. p. 297.

Anestia inquinata, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1083 (1890); Kirby, Cat. Het. p. 297.

♂. Head and tegule yellowish white; palpi, frons, and antennæ brownish; thorax brownish, with whitish spots on pro- and meta-thorax; fore and mid legs yellowish and fuscous; hind legs yellow; abdomen orange-yellow. Fore wing greyish white; the costal area broadly dark brown from base to antemedial line, which is strong, sinuous and somewhat oblique; a round spot in middle of cell; a discoidal spot conjoined to the terminal dark area, which has a sinuous inner edge, an apical greyish patch, and often some other obscure subterminal and terminal patches. Hind wing orange, with apical fuscous patch continued towards tornus as a fine line.

♀. Apterous; the antennæ short, serrate; the wings represented by small flaps of cuticle with tips of grey hair; legs much reduced; abdomen sparsely clothed with grey hair, the anal tuft larger.

Ab. 1. *inquinata*. Fore wing entirely red-brown except a grey patch on middle of inner area, a postmedial patch on costa extending to lower angle of cell, and a curved mark from apex to vein 6.

Hab. VICTORIA, Melbourne (*Raynor, Lucas, Anderson*), 7 ♂, Burnside, 1 ♂. *Exp.* 24 millim. Type † in Coll. Meyrick.

717. *Xanthodule semiochrea*.

Xanthodule semiochrea, Butl. Trans. Ent. Soc. 1886, p. 384, pl. 9. f. 1; Kirby, Cat. Het. p. 355.



Fig. 243.—*Xanthodule semiochrea*, ♂. $\frac{3}{2}$.

♂. Reddish brown; frons and vertex of head yellowish white. Hind wing orange, with apical brown patch and very fine terminal brown line.

Hab. QUEENSLAND, Peak Downs, 1 ♂ type. *Exp.* 18 millim.

Genus **XANTHOCRASPEDA**.

Type.

Xanthocraspeda, Hmps. Moths Ind. ii. p. 121 (1894) *marginata*.

Proboscis fully developed; palpi porrect, not extending beyond the frons, which is clothed with rough hair; antennæ of male with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6, 7 on a long stalk; 8 from towards end of cell.

718. *Xanthocraspeda marginata*.

Nudaria marginata, Wlk. xxxi. 274 (1864); Hmps. Moths Ind. ii. p. 122; Kirby, Cat. Het. p. 364.

♂. Head, thorax, and abdomen ochreous yellow; fore and mid tibiæ and tarsi tinged with brown above; abdomen fuscous below except at extremity; wings reddish brown. Fore wing with the costa orange-yellow from before middle to near apex; the inner margin yellow; cilia yellow at tips. Hind wing with the inner area yellow; cilia yellow at tips.

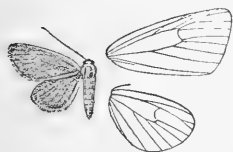


Fig. 244.—*Xanthocraspeda marginata*, ♂. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

Hab. S. INDIA, Coimbatore (*Walhouse*), 1 ♂ type. *Exp.* 22 millim.

Genus **BALBURA**.

Type.

Balbura, Wlk. ii. 481 (1854) *dorsisigna*.

Proboscis fully developed; palpi upturned, reaching vertex of head, the 1st joint fringed with hair; antennæ of male bipectinate, with short branches, the apical third serrate; tibiæ with the spurs moderate. Fore wing rather

long and narrow; vein 2 from middle of cell, oblique; 3 from near angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

719. *Balbura dorsisigna*.

Balbura dorsisigna, Wlk. ii. 481 (1854); Druce, Biol. Centr.-Am., Het. ii. p. 400.



Fig. 245.—*Balbura dorsisigna*, ♂. 1.

Dark greyish fuscous; tegulae, patagia, and thorax orange-red. Fore wing with orange-red patch at base not reaching costa; blackish streaks on the veins, in cell, and submedian fold.

Hab. HONDURAS, 1 ♀; PANAMA, Bugaba (*Champion*), 3 ♂, 2 ♀, Godman-Salvin Coll.; VENEZUELA, 3 ♂, 1 ♀ type. *Exp.* 30 millim.

Genus *LITHOPROCRIS*, nov.

Type, *L. methyalea*.

Proboscis fully developed; palpi porrect, not reaching as far as frons and fringed with long scales; antennae of female ciliated, the shaft with a fringe of long scales above at middle; tibiae with the spurs short. Fore wing long and narrow, the costa arched towards apex, which is rounded; vein 2 from towards angle of cell; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards angle of cell; 3, 4, 5 from angle; 6, 7 stalked almost to termen; 8 from beyond middle of cell.

- | | |
|---|--------------------|
| A. Hind wing with hyaline patch in and below cell | <i>methyalea</i> . |
| B. Hind wing without hyaline patch | <i>jason</i> . |

720. *Lithoprocris methyalea*, n. sp.



Fig. 246.—*Lithoprocris methyalea*, ♀. 1.

♀. Head, thorax, and fore wing deep metallic blue-green; abdomen and hind wing deep metallic blue, the latter with hyaline patch in lower end of cell and below the cell from base to beyond middle.

Hab. BOLIVIA, Songo (*Garlepp*), 1 ♀ type. *Exp.* 30 millim.

*721. *Lithoprocris jason*. (Plate XXVIII. fig. 13.)

Lithoprocris jason, Dognin, Ann. Soc. Ent. Belge, xliii. p. 133 (1899).

♀. Head, thorax, and abdomen metallic blue. Fore wing golden green, the base, costal area, and termen brilliant deep blue, the last expanding towards apex. Hind wing greenish black.

Hab. ECUADOR, Zamora, type + ♀ in Coll. Dognin. *Exp.* 26 millim.

Genus **DIPÆNA.**

Type.

<i>Dipæna</i> , Wlk. i. 257 (1854)	<i>acharon</i> .
<i>Zygænopsis</i> , Feld. Reis. Nov. p. 10 (1874), non descr.	<i>contenta</i> .

Proboscis fully developed; palpi upturned and reaching vertex of head, the 2nd joint fringed with hair in front; antennæ with bristles and cilia, the shaft fringed with scales above from one-fourth to three-fourths; tibiæ with the spurs short. Fore wing long and narrow, the costa arched towards apex which is rounded; vein 2 from towards angle of cell; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12; male with a fringe of long hair on medial part of inner margin. Hind wing with vein 2 from towards angle of cell; 3 from close to angle; 4, 5 from angle, or 5 from above angle; 6, 7 stalked; 8 from beyond middle of cell.

SECT. I. Antennæ with the shaft dilated at middle and with a long fringe of scales in both sexes.

A. Hind wing of male with elliptical patch of androconia in end of cell.

722. *Dipæna acharon*.

Euchromia acharon, Wlk. i. 253 (1854), nec Fabr.

Euchromia ferruginosa, Wlk. i. 259 (1854); Kirby, Cat. Het. p. 173.

Anycles rhodura, Butl. Journ. Linn. Soc., Zool. xii. p. 425 (1876); Kirby, Cat. Het. p. 173.

♂. Head, thorax, and abdomen shot with blue and purple, the last three segments of abdomen scarlet on dorsum, the anal tuft only scarlet below. Fore wing purple, the costa narrowly and the inner area broadly suffused with deep metallic blue-green. Hind wing hyaline; the patch at end of cell buff; the terminal area purplish blue, narrowing to apex.



Fig. 247.—*Dipæna acharon*, ♂. 1.

♀. Abdomen with less scarlet on dorsum at extremity; hind wing with the terminal area broadly purple throughout.

Hab. AMAZONS, Pará (Bates), 2 ♂, 4 ♀, type and type *ferruginosa*. Exp. 30 millim.

B. (*Zygænopsis*.) Hind wing without patch of androconia.

723. *Dipæna contenta*.

Euchromia contenta, Wlk. i. 258 (1854); Kirby, Cat. Het. p. 172.

Dipæna lateralis, Wlk. vii. 1634 (1856).

Zygænopsis squamicornis, Feld. Reis. Nov. pl. 102. f. 19 (1874); Kirby, Cat. Het. p. 127.

♂. Head, thorax, and abdomen black shot with purple; abdomen

with broad dorsal scarlet fascia indented somewhat on medial segments; the anal tuft scarlet. Fore wing purplish brown, the costa narrowly, the inner area broadly suffused with purplish blue. Hind wing semihyaline, the terminal area broadly suffused with blue, narrowing to apex and running up nearly to base on inner area.



Fig. 248.—*Dipæna contenta*, ♂. 1.

Hab. AMAZONS, Pará (Bates), 2 ♂, type. *Exp.* 28 millim.

SECT. II. Antennæ of female with the shaft not dilated and with short fringe of scales.

- A. Hind wing of female with elliptical swelling on extremity of subcostal nervure; vein 5 from above angle of cell.

*724. *Dipæna eucera*.

Cisthene eucera, Feld. Reis. Nov. pl. 139. f. 10 (1875); Kirby, Cat. Het. p. 289.

♀. Head and thorax black; palpi orange-yellow except towards tips; antennæ white towards extremity; tegulæ and patagia, except at base, orange-yellow; legs orange and black; abdomen orange, with dorsal stripe and the terminal segments black. Fore wing black with a cupreous tinge; an orange-yellow fascia on inner area from base to before middle, extending up to submedian fold; an oblique post-medial band slightly constricted at middle. Hind wing orange; a terminal black band expanding widely on apical area and somewhat irregularly towards tornus.

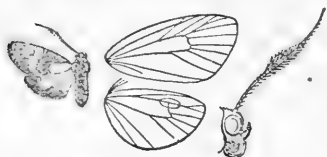


Fig. 249.—*Dipæna eucera*, ♀. 1.

Hab. COLOMBIA, Bogotá, type † ♀ in Coll. Rothschild. *Exp.* 22 millim.

- B. Hind wing of female without swelling on subcostal nervure; vein 5 from angle of cell.

725. *Dipæna mæsta*.

Euchromia mæsta, Wlk. i. 259 (1854); Kirby, Cat. Het. p. 173.

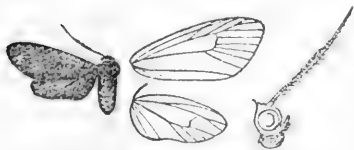


Fig 250 — *Dipæna mæsta*, ♀. 1.

♀. Head, thorax, abdomen, and fore wing black-brown, very slightly shot with dull purple; anal tuft crimson; hind wing black-brown.

Hab. ignotus, 1 ♀ type. *Exp.* 28 millim.

SECT. III. Antennæ of female without fringe of scales, of male with short fringe; hind wing with vein 5 from well above angle of cell; male with the inner area of hind wing produced into a large lobe; abdomen with large lateral tufts of orange hair from 2nd segment.

726. *Dipæna salcedo*.

Anycles salcedo, Dognin, Ann. Soc. Ent. Belge, xlii. p. 345 (1898).



Fig. 251.—*Dipæna salcedo*, ♂. †

♀. Uniform black shot with deep metallic blue with purple reflections.

♂. Abdomen with the lateral tufts and ventral bands on four terminal segments orange; hind wing bluer, with small hyaline patch below base of cell.

Hab. PANAMA, Chiriqui, 1 ♀; ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 30 millim.

Genus CLOËSIA, nov.

Type, *C. parthia*.

Proboscis fully developed; palpi upturned, not reaching vertex of head, the 2nd joint fringed with hair in front; antennæ of male with bristles and cilia; tibiæ with the spurs short. Fore wing with vein 2 from towards angle of cell; 3 from before angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 10 from cell; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell and strongly curved.

727. *Cloësia parthia*.

Ichoria parthia, Druce, A. M. N. H. (6) iv. p. 83 (1889); id. Biol. Centr. Am., Het. ii. p. 336, pl. 70. f. 23; Kirby, Cat. Het. p. 128.



Fig. 252.—*Cloësia parthia*, ♂. †.

Head and thorax deep metallic blue-green; abdomen deep purplish blue. Fore wing metallic golden green. Hind wing blue-green.

Hab. NICARAGUA, Chontales (Belt), 1 ♂; PANAMA, Bugaba (Champion), 1 ♂, type, Godman-Salvin Coll.; BRAZIL, São Paulo. *Exp.* 34 millim.

Genus EUDOLICHE.

Eudoliche, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 660 (1877).....

Type.

vittata.

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons; antennæ of male laminate; legs hairy, hind tibiæ with the medial spurs absent; abdomen clothed with rough hair. Fore wing long and narrow, the

costa arched towards apex; vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6, 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from middle of cell; 3, 4 from angle; 5 absent; 6, 7 on a long stalk; 8 from middle of cell.

728. *Eudoliche vittata*.

Eudoliche vittata, Möschl. Verh. zool.-bot. Ges. Wien, xxvii. p. 660, pl. 9. f. 28 (1877); Kirby, Cat. Het. p. 300.

Eudoliche achatina, Butl. Trans. Ent. Soc. 1878, p. 55; Kirby, Cat. Het. p. 300.

♂. White; metathorax rufous; abdomen slightly tinged with fuscous on dorsum towards extremity. Fore wing with brownish



Fig. 253.—*Eudoliche vittata*, ♂. †.

patch at base of costa; a rufous subbasal band irrorated with white from costa to vein 1; an antemedial point on costa and diffused patch below the cell, the latter almost conjoined to a diffused patch extending nearly to termen and enclosing a white discoidal spot; a postmedial point on costa; a fuscous streak on inner margin from before middle to tornus; some diffused purplish fuscous below the end of the discal rufous patch; two rufous spots on termen below apex, with some purplish fuscous on their inner edge. Hind wing suffused with fuscous, except the basal and marginal areas.

♀. Fore wing with hardly a trace of the white discoidal spot; no fuscous streak on inner margin or purplish fuscous below extremity of the rufous patch. Hind wing wholly white.

Hab. SURINAM, type † ♀ in Coll. Staudinger; AMAZONS, R. Jutahi (*Trail*), 1 ♂, type *achatina*. *Exp.* 20 millim.

Genus **THYONE**.

<i>Thyone</i> , Wlk. ii. 552 (1854).....	Type. <i>simplex</i> .
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Proboscis aborted, minute; palpi minute; antennæ of male ciliated; tibiæ with the spurs short; hind tibiæ with the medial spurs absent; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from beyond middle of cell; 3 from well before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with or approximated to 12. Hind wing with vein 2 from towards angle of cell; 3, 4 stalked or from cell; 5 from far above angle; 6, 7 stalked; 8 from middle of cell.

- A. Fore wing with dark postmedial patches and the veins dark.
- a. Head blue-black..... *celenna*.
 - b. Head without blue tinge.
 - a¹. The dark areas black-brown *placida*.
 - b¹. The dark areas pale red-brown *parima*.
- B. Fore wing white, without postmedial patches.
- a. Fore wing with the inner area and underside tinged with fuscous..... *tincta*.
 - b. Fore wing wholly white.
 - a¹. Antennæ black *melanocera*.
 - b¹. Antennæ white *simplex*.

729. *Thyone celenna*.

Trichomelia celenna, Schaus, P. Z. S. 1892, p. 283; id. Am. Lep. pl. ii. f. 5.

Purplish black; head and tegulæ suffused with metallic green; thorax with white patches. Fore wing white; the base, a fascia on basal half of costa, and streaks on the veins, in cell, and submedian fold purplish black; a black spot below middle of costa, a large spot beyond the cell just beyond middle, and a small spot on middle of



Fig. 254.—*Thyone celenna*, ♂. 1.

termin. Hind wing fuscous black.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♂ 1 ♀, Castro Paraña, Novo Friburgo, Rio Janeiro, type † in Coll. Schaus. *Exp.* 30 millim.

*730. *Thyone placida*. (Plate XXVIII. fig. 26.)

Trichomelia placida, Schaus, J. N. Y. Ent. Soc. iv. p. 151 (1896).

Head and thorax grey and fuscous brown; abdomen greyish fuscous. Fore wing grey, slightly irrorated with fuscous; the margins and veins streaked with black-brown; similar streaks in cell and submedian fold; an oblique striga on inner area before middle; a spot in middle of cell and an irregular patch below origin of vein 2; the discocellulars rather broadly dark; a terminal line. Hind wing pale fuscous.

Hab. BRAZIL, São Paulo, Castro Paraña; type † in Coll. Schaus. *Exp.* 24 millim

*731. *Thyone parima*. (Plate XXVIII. fig. 25.)

Trichomelia parima, Schaus, J. N. Y. Ent. Soc. iv. p. 151 (1896).

♀. Head, thorax, and abdomen pale brown slightly mixed with grey. Fore wing pale brown, with obscure diffused grey patches in

interspaces of basal half, in end of cell, and in interspaces of terminal area. Hind wing pale brown.

Hab. BRAZIL, São Paulo, 1 ♀ type † in Coll. Schaus. *Exp.* 28 millim.

732. *Thyone tinctoria*, n. sp. (Plate XXVIII. fig. 5.)

♀. White; frons, legs, and abdomen tinged with fuscous; antennæ ringed with black. Fore wing with the costa black towards base; the inner area and underside tinged with fuscous.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♀ type. *Exp.* 26 millim.

733. *Thyone melanocera*. (Plate XXVIII. fig. 29.)

Thyone melanocera, Schaus, J. N. Y. Ent. Soc. vii. p. 217 (1899).

Pure white; antennæ black; fore legs and the last joint of mid and hind tarsi blackish.

Hab. TRINIDAD, 1 ♂; VENEZUELA, Aroa, 1 ♀; SURINAM. *Exp.* 22 millim. Type † in Coll. Schaus.

734. *Thyone simplex*.

Thyone simplex, Wlk. ii. 553 (1854); Kirby, Cat. Het. p. 440.

Lithosia alba, Druce, Biol. Centr.-Am., Het. i. p. 131 (1885); Kirby, Cat. Het. p. 338.

Crambidia parvita, Schaus, J. N. Y. Ent. Soc. iv. p. 151 (1896).



Fig. 255.—*Thyone simplex*, ♂. †.

Pure white. Fore wing with vein 6 from angle of cell.

Hab. MEXICO, Atoyac (*H. H. Smith*), 1 ♂; HONDURAS, 1 ♀ type; PANAMA, Bugaba (*Champion*), 1 ♀, type *alba*, Godman-Salvin Coll.; BRAZIL, São Paulo (*Jones*), 4 ♂. *Exp.* 22 millim. Type † *parvita* in Coll. Schaus.

Genus **AFRIDA**.

<i>Afrida</i> , Müschl. Abh. Senck. Ges. xiv. p. 30 (1886).....	Type. <i>tortriciformis</i> .
<i>Noeselca</i> , Hmps. Trans. Ent. Soc. 1898, p. 244	<i>minuta</i> .

Proboscis fully developed; palpi porrect, extending to just beyond the frons; tibiae with the spurs long. Fore wing short and rather broad; vein 2 from middle of cell, curved at base; 3 from well before angle; 5 from above angle; 6 from below upper angle; 7, 8, and 10 stalked, 9 absent; 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle; 5 from far above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Antennæ of male bipectinate.

A. (*Afrida*). Hind wing with the tornus somewhat lobed and clothed with thick dark scales.

735. *Afrida tortriciformis*.

Afrida tortriciformis, Möschl. Abh. Senck. Ges. xiv. p. 30 (1886); Kirby, Cat. Het. p. 378.

♂. Grey-white; antennæ, pectus, legs, and ventral surface of abdomen blackish. Fore wing with dentate black antemedial line not reaching inner margin and with black point on its inner side below costa; a fuscous band just beyond middle defined by waved black lines and traversed by an indistinct waved line, usually strongly contracted below costa; a black discoidal spot; some fuscous suffusion on terminal area and a terminal series of black points. Hind wing suffused with fuscous, the inner area clothed with thick black scales; the cilia black.

Hab. JAMAICA, Kingston (*Cockerell*), 1 ♂. *Exp.* 12 millim. Type † in Coll. Staudinger.

B. (*Neoselca*). Hind wing normal.

- a. Fore wing with blackish medial band *minuta*.
b. Fore wing with triangular patch on costa *melicerta*.

736. *Afrida minuta*.

Nola minuta, Druce, Biol. Centr.-Am., Het. i. p. 140, pl. 13. f. 17 (1885); Kirby, Cat. Het. p. 374.

♂. Head, tegulæ, and patagia white; palpi, antennæ, and thorax blackish; legs black and white; abdomen whitish, dorsally suffused with fuscous. Fore wing silvery white; the base of costa and some basal points black; a dentate subbasal line not reaching inner margin; a medial fuscous band, defined by dentate black lines, constricted in cell and traversed by an indistinct waved line; a dark point at lower angle of cell; some diffused fuscous on terminal area, a black point on costa, an oblique streak from apex, and traces of a subterminal waved line. Hind wing white, tinged with fuscous towards termen; an indistinct discoidal point.

Hab. COSTA RICA, Irazu (*Rogers*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

Subsp. 1. Smaller: fore wing with the medial band not constricted in cell.

Hab. GRENADA, Balthazar (*H. H. Smith*), 1 ♂, 1 ♀. *Exp.* 14 millim.

737. *Afrida melicerta*.

Nola melicerta, Druce, Biol. Centr.-Am., Het. i. p. 140, pl. 8. f. 18 (1885); Kirby, Cat. Het. p. 374.

♂. Palpi, frons, and antennæ black; vertex of head and thorax pure white; pectus, legs, and abdomen blackish. Fore wing silvery white; a triangular black patch on base of costa, with an oblique striga beyond it below the cell; a dentate antemedial line from cell to inner margin, a triangular patch on middle of costa, and a rounded patch on inner margin with two arms extending towards cell; a spot with white point on it on costa towards apex; a fuscous triangular patch on termen, with irregular black marks on its edges extending nearly to cell. Hind wing white, with indistinct discoidal spot; some fuscous at apex and traces of a subterminal line.

♀. Hind wing more suffused with fuscous.

Ab. 1. Fore wing with the subbasal patch on costa and sometimes also the medial patch filled in with olive-yellow or green, the space between the double lines on inner area not filled in with black.

Ab. 2. Fore wing with the medial patch on costa large and quadrate, with a black streak on its lower edge connecting it with the triangular terminal patch; the subbasal striga connected with the antemedial line and forming a prominent loop.—São Paulo, Coll. Schaus; Bolivia.

Hab. MEXICO, Jalapa (*Trujillo*), 2 ♀, Orizaba, Oaxaca; COSTA RICA (*Underwood, Rogers*), 1 ♂, 1 ♀ type, Godman-Salvin Coll.; BRAZIL, Castro Paraña, São Paulo; BOLIVIA, Chaco (*Garlepp*), 1 ♂. *Exp.* 18–24 millim.

SECT. II. Antennæ of male ciliated.

738. *Afrida ciliata*.

Nola minuta, Druce, Biol. Centr.-Am., Het. i. p. 140 (part).

♂. Head, thorax, and abdomen white. Fore wing white suffused with pale orange-yellow; the costal edge black towards base; an indistinct curved subbasal line not reaching inner margin; three fine dentate black medial lines with black suffusion between them on costal half of wing; some black points on costa towards apex and diffused black scales beyond the cell; a diffused waved terminal line and a line through the cilia, which are blackish except below middle. Hind



Fig. 258.—*Afrida ciliata*, ♂. 1.

wing white, with traces of waved medial and postmedial lines; the termen, cilia, and underside irrorated with black scales; a discoidal point on underside.

Hub. COSTA RICA, Irazu (*Rogers*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

Genus **HYPERMÆPHA**, nov.

Type, *H. sanguinea*.

Proboscis fully developed; palpi porrect, extending to beyond the frons; antennæ ciliated and thickened with scales above; tibiæ with the spurs moderate. Fore wing rather short and broad; vein 2 from well beyond middle of cell; 3 from close to angle; 4, 5 from angle; 6 from upper angle; 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards angle of cell; 3, 4 stalked; 5 absent; 6, 7 coincident; 8 from towards end of cell.

739. *Hypermæpha sanguinea*.

Cisthene sanguinea, Butl. Trans. Ent. Soc. 1878, p. 53; Kirby, Cat. Het. p. 289.



Fig. 259.

Hypermæpha sanguinea, ♂. ♀.

♂. Head and thorax brown; antennæ and mid and hind tibiæ and tarsi yellowish; abdomen crimson, with the anal tuft black, the ventral surface brown. Fore wing brown. Hind wing crimson, the costa and cilia brown.

Hab. AMAZONS, R. Jutahi (*Trail*), 1 ♂ type. *Exp.* 12 millim.

Genus **CHRYSOCHLOROSIA**, nov.

Type, *C. callistia*.

Proboscis fully developed; palpi porrect, not extending beyond frons; antennæ ciliated; tibiæ with the spurs short. Fore wing elongate, the apex rounded; vein 2 from towards angle of cell, curved near base; 3 from near angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 7 from beyond 9; 10 free; 11 anastomosing strongly with 12. Hind wing with the cell very long; vein 2 from towards angle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell.

*740. *Chrysochlorosia splendida*.

Ptychoglene splendida, Druce, P. Z. S. 1885, p. 524, pl. 32. f. 8; Kirby, Cat. Het. p. 313.

♀. Head, thorax, and abdomen golden green, with copper and blue reflections; antennæ black, white towards tips. Fore wing golden green, the margins deep blue; a short deep blue streak from base below costa. Hind wing blue-black, thinly scaled; the underside metallic green.

♂. Hind wing suffused with metallic green.

Hab. ECUADOR, Chiguinda (*Buckley*), type ♀ in Coll. Druce; BOLIVIA, Rio Songo (*Garlepp*), ♂ in Coll. Staudinger. *Exp.* 36 millim.

741. *Chrysochlorosia callistia*, n. sp.

♀. Head, teguke, and patagia brilliant golden green; antennæ black, white towards tips;



Fig. 260.—*Chrysochlorosia callistia*, ♀. 1.

thorax black, with coppery patch on mesothorax; legs and abdomen cupreous, golden green and metallic blue. Fore wing brilliant golden green, suffused with golden copper towards base; the veins and margins and streaks in cell and submedian interspace deep blue. Hind wing bluish fuscous, the inner area suffused with golden green; the veins on inner area and the termen deep blue.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♀ type. *Exp.* 30 millim.

Genus **ODOZANA**.

Type.

Odozana, Wlk. xxxi. 109 (1864) *floccosa*.

Proboscis fully developed; palpi porrect, not extending beyond the frons; antennæ of male with bristles and cilia; abdomen usually with lateral tufts of very long hair on 2nd and shorter tufts on terminal segments. Fore wing long and narrow; vein 2 from middle of cell; 3 from before angle; 5 from just below middle of discocellulars; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 from cell; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Hind tibiæ with the spurs moderate, the inner medial spur present.

- A. Hind tibia in male fringed on outer side with very long black hair; fore wing with the inner margin lobed at middle; hind wing with the termen truncate towards tornus, which is lobed.

742. *Odozana floccosa*.

Odozana floccosa, Wlk. xxxi. 110 (1864); Kirby, Cat. Het. p. 292.

Hypocrita trichiura, Feld. Reis. Nov. pl. 138. f. 52 (1875); Kirby, Cat. Het. pp. 291, 293.

♂. Dark brown suffused with purple; antennæ with the 1st joint pale; patagia with the terminal half crimson; tarsi with the 1st joint pale; hind



Fig. 261.

Odozana floccosa, ♂. 1.

tibiæ and its fringe deep black; abdomen crimson, the lateral tufts orange, the ventral surface blackish to near extremity. Hind wing with the basal and inner areas crimson.

Ab. 1. Hind wing with the inner margin only crimson.

Ab. 2. Fore wing with some ochreous in discal fold towards end of cell.

Hab. BRAZIL, Ega (*Bates*), 3 ♂, type. *Exp.* 20 millim. Type † *trichiura* in Coll. Rothschild.

B. Hind tibiæ in male without fringe of hair; neither wing with the inner margin lobed.

*743. *Odozana obscura*.

Talara obscura, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).



Fig. 262.—*Odozana obscura*, ♂. $\frac{3}{2}$.

type † in Coll. Schaus. *Exp.* 18 millim.

Head, thorax, and abdomen black suffused with deep green with purplish reflections; abdomen and hind wing black; the tufts at extremity of abdomen of male whitish.

Hab. BRAZIL, Rio Janeiro,

SECT. II. Hind tibiæ of male with the spurs minute and without fringe of hair; the inner medial spur absent.

A. Abdomen of male with long lateral tufts of hair on 2nd segment; fore wing with the inner margin lobed at middle.

744. *Odozana methæmata*, n. sp.

Odozana floccosa, Druce, Biol. Centr.-Am., Het. i. p. 124, pl. 12. f. 18 (nec Wlk.).



Fig. 263.—*Odozana methæmata*, ♂. $\frac{1}{2}$.

♂. Brown suffused with purple; the terminal half of patagia and thorax crimson; the 1st joint of tarsi pale; abdomen crimson, the ventral surface black to near extremity. Hind wing with the basal half from cell to inner margin deep crimson.

Hab. PANAMA, Bugaba (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

B. Abdomen of male without long lateral tufts of hair; fore wing with the inner margin not lobed.

a. Fore wing with yellow fascia on inner margin *margina*.
b. Fore wing without yellow fascia on inner margin *domina*.

745. *Odozana margina*. (Plate XXVIII. fig. 14.)

Odozana margina, Schaus, J. N. Y. Ent. Soc. iv. p. 150 (1896).

Head black-brown, with the palpi orange, and crimson streaks behind antennæ; thorax black, the tegulæ and edges of patagia crimson; pectus and legs partly crimson; abdomen crimson. Fore

wing black-brown with a purplish tinge; a yellow fascia on inner margin not quite reaching tornus. Hind wing crimson, with terminal broad black-brown band ending before tornus, and with its inner edge angled at vein 2.

Ab. 1. The streaks on head, tegulæ, edges of patagia, and legs yellow; hind wing with the terminal band narrower.—Peru, Bolivia.

Hab. BRAZIL, Castro Paraña (*Jones*), type † in Coll. Schaus; PERU, Vilcan (*Garlepp*), 1 ♂; BOLIVIA, Songo. *Exp.* 16 millim.

746. *Odozana domina*.

Talara domina, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).

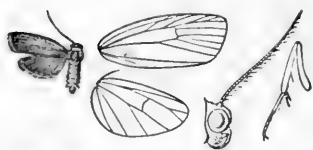


Fig. 264.—*Odozana domina*, ♂. †.

(*Jones*), 2 ♂. *Exp.* 18 millim.

♂. Head and thorax fuscous grey; tegulæ pale crimson; palpi and legs orange-yellow; abdomen crimson, the anal tuft orange. Fore wing fuscous grey. Hind wing darker; the costal area pale; the inner margin pink.

Hab. BRAZIL, São Paulo Type † in Coll. Schaus.

Genus **LEUCORHODIA**, nov.

Type, *L. ragua*.

Proboscis fully developed; palpi porrect, extending hardly as far as frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate. Fore wing long and narrow; vein 2 from beyond middle of cell; 3 from well before angle; 4, 5 separate; 6 from below upper angle; 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 strongly stalked; 5 absent; 6, 7 stalked; 8 from beyond middle of cell.

747. *Leucorhodia ragua*.

Lithosia ragua, Druce, Biol. Centr.-Am., Het. ii. p. 400, pl. 78. f. 12 (1897).



Fig. 265.—*Leucorhodia ragua*, ♂. †.

from base through the cell to termen; a discoidal point. Hind wing pale crimson.

Hab. GUATEMALA, Pantaleon (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

♂. Head and thorax yellowish white, the thorax suffused with brown; fore legs fuscous in front; abdomen pale crimson. Fore wing yellowish white, the costal edge fuscous at base; a diffused fuscous brown fascia

Genus **PROCRIDIA**, nov.

Type, *P. metallica*.

Proboscis fully developed; palpi minute, fringed with hair; antennæ short and greatly dilated, with thick scales at middle; hind tibiæ with the medial spurs absent, the terminal spurs minute. Fore wing narrow, the costa arched at middle; veins 2, 3, 4 stalked; 5 absent; 6, 7, 8 stalked; 9 absent; 10 absent; 11 free. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell.

*748. **Procridia metallica**.

Odozana metallica, Dognin, Ann. Soc. Ent. Belge, xli. p. 243 (1897).



Fig. 266.—*Procridia metallica*, ♀. 1.

♀. Head and thorax golden metallic green, with some coppery scales; abdomen blue-green. Fore wing metallic golden green, the margins bluer; a large orange patch on terminal area. Hind wing fuscous with a bluish tinge; a terminal ill-defined yellow band narrowing to a point near tornus.

Hab. ECUADOR, Loja, type ♀ in Coll. Dognin. *Exp.* 24 millim.

Genus **PHAULOSIA**, nov.

Type, *P. sordida*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of female ciliated; tibiæ with the spurs moderate; abdomen with the anal tuft large. Fore wing rather narrow; vein 2 from beyond middle of cell; 3 from well before angle; 4, 5 from angle; 6, 7, 8, 9 stalked; 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 absent; 6, 7 on a long stalk; 8 from middle of cell.

749. **Phaulosia sordida**.

Eudoliche sordida, Butl. Trans. Ent. Soc. 1878, p. 55; Kirby, Cat. Het. p. 300.



Fig. 267.—*Phaulosia sordida*, ♀. 1.

♀. Head and thorax whitish tinged with brown; abdomen grey. Fore wing white, irrorated and suffused with reddish brown; a dark point at lower angle of cell; the apical area without white suffusion, a blackish spot at apex. Hind wing pale fuscous.

The type is much rubbed.

Hab. AMAZONS, R. Jutahi (*Trail*), 1 ♀ type. *Exp.* 14 millim.

Genus **XANTHOLOPHA**, nov.Type, *X. purpurascens*.

Proboscis fully developed; palpi obliquely upturned, not reaching vertex of head; antennæ of male bipectinate, with moderate branches ending in a bristle; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from beyond middle of cell; 3, 4 from angle; 5 from just above angle; 6 from just below upper angle; 7, 8, 9 stalked; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from beyond middle of cell; 3, 4, 5 strongly stalked; 6, 7 stalked; 8 from before middle of cell.

750. *Xantholopha purpurascens*.

Xantholopha purpurascens, Schaus, J. N. Y. Ent. Soc. vii. p. 216 (1899).



Fig. 268.—*Xantholopha purpurascens*, ♂. 1.

Exp. 28 millim. Type † in Coll. Schaus.

♂. Head, thorax, and fore wing black with a purplish tinge; palpi except at tips, tegulæ, and throat orange; abdomen and hind wing black; the base of claspers orange.

Hab. BRAZIL, Castro Paraña (Jones), 1 ♂.

Genus **PREPIELLA**, nov.Type, *P. hippona*.

Proboscis fully developed; palpi porrect, hardly extending beyond frons or obliquely upturned; antennæ ciliated or pectinated; tibiæ with the spurs moderate. Fore wing short and broad, the termen obliquely rounded; vein 2 from beyond middle of cell; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident or stalked; 5 from above angle; 6, 7 on a long stalk; 8 from middle of cell.

SECT. I. Hind wing with veins 3, 4 coincident; male with the tornus lobed, the termen dilated from vein 5 to submedian fold.

A. Abdomen of male with lateral tufts of long hair from 3rd segment.

751. *Prepiella hippona*.

Odozana hippona, Druce, Biol. Centr.-Am., Het. i. p. 125, pl. 12. f. 15 (1885).

♂. Head, thorax, and fore wing dark brown, suffused with purple and cupreous; abdomen orange-red, the lateral tufts orange, the terminal segment brown. Hind wing scarlet, with dark brown apical patch.



Fig. 269.—*Prepiella hippona*, ♂. 2.

Hab. GUATEMALA, Vera Paz (Champion), 2 ♂ type, Godman-Salvin Coll. Exp. 20 millim.

b. Abdomen of male without lateral tufts of hair.

- a¹. Hind wing crimson, with the black terminal band extending to tornus *miniola*.
 b¹. Hind wing yellow, with the terminal band not extending to tornus *strigivenia*.

752. *Prepiella miniola*, n. sp.

♂. Head and thorax orange; abdomen crimson, the anal tuft and ventral surface orange; tibiae banded with black. Fore wing



Fig. 270.—*Prepiella miniola*, ♂. $\frac{1}{2}$.

orange-red, more orange towards base; a black spot at base of costa; the basal area with black streaks on subcostal and median nervures and on vein 1, a dentate mark in cell, and a line from inner end of black streak on median nervure to inner margin; a black antemedial line, sinuous and very oblique from costa to median nervure, where it is very acutely angled outwards to the postmedial line, then retracted; the postmedial line angled outwards beyond cell, then inwards to meet the antemedial line; a series of short black streaks on the veins of postmedial area, two towards apex forming a V-mark; the cilia black towards tornus. Hind wing crimson, with terminal black band narrowing from costa to near tornus.

Hab. AMAZONS (Bates), 1 ♂ type, Fonteboa. *Exp.* 14 millim.

Subsp. 1. Fore wing with the antemedial line not angled outwards on median nervure.

Hab. PERU, 2 ♂ in Coll. Schaus.

753. *Prepiella strigivenia*, n. sp. (Plate XXVIII. fig. 6.)

♂. Yellow; antennae blackish; patagia and mesothorax with blackish patches; fore and mid tibiae banded with black. Fore wing with short subbasal black line; a black streak on basal part of costa; subbasal streaks on subcostal and median nervures conjoined at base; a V-shaped mark below the cell with a short line from its lower extremity on vein 1; a medial line angled outwards on subcostal and median nervures and inwards in submedian fold; a crimson line on discocellulars with an oblique streak from its lower extremity to the postmedial line; some diffused crimson above inner margin; a postmedial black line oblique from costa to vein 5 where it is dentate, then sinuous and ending at tornus and with a series of short streaks on the veins beyond it; a black terminal line. Hind wing tinged with crimson; an apical blackish patch narrowing to vein 2, the cilia black to submedian fold.

Hab. AMAZONS, Ega (Bates), 1 ♂ type, Fonteboa. *Exp.* 16 millim.

SECT. II. Hind wing with veins 3, 4 stalked.

A. Antennæ of male bipectinate, the branches ending in a bristle, the apical part serrate.

754. *Prepiella pexicera*.

Prepiella pexicera, Schaus, J. N. Y. Ent. Soc. vii. p. 215 (1899).

Head and thorax ochreous; antennæ blackish; abdomen ochreous, the anal tuft and ventral surface ochreous. Fore wing ochreous; two black points at base; the veins and cell streaked with black from near base to the medial line, which is acutely angled on median nervure and connected by a streak with the

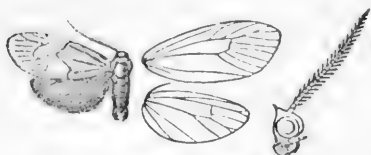


Fig. 271.—*Prepiella pexicera*, ♂. ♀.

postmedial line, which is acutely dentate just above this point and ends at tornus; a crimson discoidal spot; the veins of terminal area streaked with black to near termen; a fine terminal line. Hind wing crimson, with small black apical patch.

Hab. VENEZUELA, Aroa, 1 ♂. *Exp.* 14 millim. Type † in Coll. Schaus.

B. Antennæ of male with bristles and cilia.

- a. Fore wing with the antemedial line evenly curved *aurea*.
 b. Fore wing with the antemedial line highly waved *sesapina*.

755. *Prepiella aurea*.

Maypha aurea, Butl. Trans. Ent. Soc. 1878, p. 54; Kirby, Cat. Het. p. 291.

♂. Head, thorax, and abdomen orange-yellow; antennæ blackish; fore tibiae banded with blue-black; abdomen with black ventral bands. Fore wing golden yellow; a curved blue-black antemedial line; a streak on costa from base to the antemedial line and streaks in and below cell and on vein 1, not reaching the base or line; a crimson spot in end of cell; a blue-black postmedial line produced outwards to a long tooth on vein 5 and with short black streaks on the veins beyond it; a terminal black line. Hind wing crimson, with small black apical patch.



Fig. 272.—*Prepiella aurea*, ♂. ♀.

♀. Hind wing with a black line on termen from the apical patch to vein 2.

Hab. VENEZUELA, Aroa, 1 ♀ in Coll. Schaus; AMAZONS, R. Manhes (Trail), 1 ♂ type, Fonteboa, 1 ♀. *Exp.* 14 millim.

756. *Prepiella sesapina*. (Plate XXVIII. fig. 7.)

Mæpha sesapina, Butl. Trans. Ent. Soc. 1877, p. 329; Kirby, Cat. Het. p. 291.

♂. Head and thorax yellow; antennæ except at tips, and a slight streak on vertex of head fuscous; tibiæ banded with fuscous; abdomen pale crimson. Fore wing ochreous yellow; a black spot at base of costa; the basal area with black streaks on vein 12, subcostal and median nervures, a line arising from the basal end of last strongly dentate outwards on vein 1, curved round above inner margin and becoming the antemedial line, which is strongly curved, slightly dentate inwards in cell and strongly below the cell; the postmedial line running out to a long tooth beyond the cell, then oblique and ending at tornus; a series of short streaks on the veins of terminal area; a fine terminal black line; the cilia black towards tornus. Hind wing crimson, with small apical brown patch; the cilia brown to vein 2, then orange.

Ab. 1. Fore wing with crimson discoidal spot and streaks on veins 1 and 2 before the postmedial line.—Bolivia.

Fore wing with vein 11 curved and approximated to 12; hind wing with veins 3, 4 strongly stalked.

Hab. BRAZIL, Espirito Santo, 1 ♂ type; BOLIVIA, Chaco (*Gartlep*), 1 ♂. *Exp.* 16 millim.

Genus *CHIONOSIA*, nov.

Type, *C. apicalis*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing rather narrow, the costa truncately oblique towards apex; vein 2 from middle of cell; 3 from long before angle; 4, 5 from angle, or 5 from above angle; 6, 7, 8 stalked; 9 absent; 10, 11 free. Hind wing with vein 2 from well beyond middle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell.

- A. Fore wing without fuscous medial band *apicalis*.
B. Fore wing with fuscous medial band *zonata*.

757. *Chionosia apicalis*.

Calligenia apicalis, Zell. Verh. zool.-bot. Ges. Wien, xxiv. p. 424, pl. 12. f. 1 (1874); Kirby, Cat. Het. p. 366.

♀. White, slightly tinged with olive-yellow. Fore wing more distinctly tinged with olive-yellow; indistinct curved subbasal, oblique antemedial and medial bands of a rather darker olive-yellow than the ground-colour; a black discoidal point; the postmedial band strongly bent outwards round the discoidal point and with a few dark scales on its excurved part; a subterminal band; an oblique brownish streak from apex and a mark on termen below



Fig. 273.—*Chionosia apicalis*, ♂. 3.

apex. Hind wing pure white, with fuscous subterminal mark below apex. Underside of fore wing with diffused brown ante- and postmedial patches from costa to below middle.

Fore wing with vein 5 from angle of cell.

Hab. BRAZIL, Rio Janeiro (*Mathew*), 3 ♀, type. *Exp.* 18 millim.

Subsp. 1. Whiter, with hardly a tinge of olive-yellow; underside of fore wing with the fuscous extending on costal area from before middle to near apex, then as a subterminal band to above inner margin; an antemedial streak on vein 1. Fore wing with vein 5 from well above angle of cell.

Hab. TRINIDAD, 1 ♂.

758. *Chionosia zonata*, n. sp. (Plate XXVIII. fig. 12.)

♀. White; head and thorax very slightly tinged with brown. Fore wing with slight brownish marks at base of costa and before middle in cell and submedian fold; the medial fuscous-brown band defined by somewhat darker lines, the inner line strongly angled outwards on median nervure, the outer incurved below the cell; the terminal area with a brownish patch from below costa to tornus; blackish marks at apex and on termen below apex.

Hab. SURINAM, Paramaribo (*Dohrn*), 1 ♀ type. *Exp.* 16 millim.

Genus **LAMPROSTOLA**, nov.

Type, *L. olivacea*.

Proboscis fully developed; palpi upturned, reaching vertex of head; the 3rd joint well developed and acuminate; antennæ of male with bristles and cilia; tibia with the spurs moderate; abdomen with slight lateral tufts of hair towards extremity. Fore wing rather narrow; vein 2 from towards angle of cell; 3 from close to angle; 5 from just above angle; 6 from below upper angle; 7, 8, 9 stalked, in one specimen 9 absent; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from well beyond middle of cell; 3, 4 coincident; 5 from angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Abdomen of male with lateral tufts of very long hair on 3rd segment; fore wing with a fold in and beyond end of cell and the veins bent downwards; hind wing with slight fold and fringe of hair at tornus.

759. *Lamprostola aglaope*.

Cisthene aglaope, Feld. Reis. Nov. pl. 138. f. 55 (1875); Kirby, Cat. Het. p. 288. *Odozana hercyna*, Druce, Biol. Centr.-Am., Het. i. p. 124, pl. 12. f. 17 (1885); Kirby, Cat. Het. p. 292.

♂. Head and thorax black; abdomen scarlet, the 1st segment, anal tuft, and ventral surface black. Fore wing black, the veins and costal area towards apex greyish. Hind wing scarlet, the costal area black, an apical black patch narrowing to a point at vein 2, then continued as a narrow line to near tornus.



Fig. 274.—*Lamprostola aglaope*, ♂. 1.

Hab. MEXICO, Vera Cruz (*Schumann*), 1 ♂ ; GUATEMALA (*Champion*), 2 ♂ , type *hereyna* ; COSTA RICA (*Underwood*), 1 ♂ , *Godman-Salvin Coll.* ; AMAZONS, type † ♂ in *Coll. Rothschild*. *Exp.* 20 millim.

SECT. II. Abdomen of male with long lateral tufts of hair at extremity ; hind wing with slight hyaline streak in cell and deep furrow below the cell on upperside, with tufts of scales on underside near its extremity.

*760. *Lamprostola pascuala*.

Odozana pascuala, Schaus, J. N. Y. Ent. Soc. iv. p. 150 (1896).

♂. Head and thorax grey-brown ; palpi except at tips, tegulæ, and throat yellow ; legs orange, with some purple-black on fore and mid legs ; abdomen crimson, the anal tufts orange, the ventral surface whitish at base. Fore wing grey-brown with a slight purplish tinge. Hind wing crimson, yellowish towards costa, with fuscous streak on median nervure ; a terminal black band broad at costa, narrowing to near tornus.



Fig. 275.

Lamprostola pascuala, ♂. †.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♂ type † in *Coll. Schaus*. *Exp.* 20 millim.

SECT. III. Abdomen of male without tufts of long hair on 2nd segment.

- | | |
|---|-------------------------|
| A. Fore wing not metallic green. | |
| a. Hind wing crimson, with terminal black band..... | <i>olivacea</i> . |
| b. Hind wing black | <i>molybdipera</i> (♀). |
| B. Fore wing metallic green | <i>nitens</i> . |

761. *Lamprostola olivacea*.

Odozana olivacea, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).

♂. Head and thorax silvery grey-brown ; tegulæ and neck orange ; abdomen crimson. Fore wing silvery grey-brown. Hind wing crimson ; the costal area fuscous ; a terminal fuscous band broad at costa, narrowing to a point at vein 1.



Fig. 276.

Lamprostola olivacea, ♂. †.

Hab. São Paulo (*Jones*), 4 ♂ . *Exp.* 20 millim. Type † in *Coll. Schaus*.

*762. *Lamprostola molybdipera*. (Plate XXVIII. fig. 16.)*Lamprostola molybdipera*, Schaus, J. N. Y. Ent. Soc. vii. p. 216 (1899).

♀. Head and thorax deep black; abdomen fuscous black. Fore wing deep black, the veins streaked with metallic leaden blue; the apical area suffused with leaden grey-blue between veins 11 and 3. Hind wing fuscous black.

Hab. MEXICO, Jalapa (*Schaus*), 1 ♀ type† in Coll. Schaus. *Exp.* 20 millim.

763. *Lamprostola nitens*, n. sp. (Plate XXVIII. fig. 20.)

Head and thorax metallic golden green, the latter with copper reflections; abdomen bluish fuscous. Fore wing metallic golden green. Hind wing and underside of both wings fuscous suffused with pale blue.

Hab. BOLIVIA, Chaco (*Garlepp*), 1 ♂ type. *Exp.* 24 millim.

Genus **CALLISTHENIA**, nov.

Type, *C. plicata*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male with long bristles and cilia; tibiæ with the spurs moderate. Fore wing long and narrow; vein 2 from beyond middle of cell; 3, 4 from angle; 5 from well above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, oblique. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 from just above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing of male with a fold in cell and thick fringe of scales on upperside.

764. *Callisthenia plicata*.

Mapha plicata, Butl. Trans. Ent. Soc. 1877, p. 328; Kirby, Cat. Het. p. 290.

Head and thorax golden yellow; antennæ black; tegulæ edged with black and with a blue point behind them; legs banded with black; abdomen crimson, the ventral surface golden yellow with black segmental lines. Fore wing golden yellow; the costa, median nervure, and vein 1 streaked with purple from base to the median line; a crimson spot at lower angle of cell; an

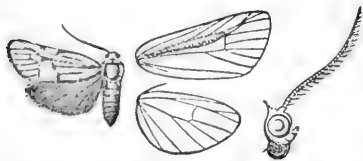


Fig. 277.—*Callisthenia plicata*, ♂. $\frac{3}{2}$.

outwardly oblique purple postmedial line, with the veins beyond it streaked with purple; cilia black. Hind wing crimson, with small apical black patch.

Hab. AMAZONS, Espiritu Santo, 1 ♂ type; PERU, 1 ♀ in Coll. Schaus. *Exp.* 18 millim.

SECT. II. Hind wing of male with thick fringes of long scales on upperside below and beyond the cell between vein 5 and submedian fold, the termen deeply excised below vein 3.

765. *Callisthenia lacteata*.

Mæpha lacteata, Butl. Trans. Ent. Soc. 1878, p. 54; Kirby, Cat. Het. p. 291.

♂. Head and thorax fuscous brown; abdomen pale crimson.



Fig. 278.—*Callisthenia lacteata*, ♂. $\frac{3}{2}$.

Fore wing yellowish white, the veins strongly streaked with brown; a purplish patch at middle of inner area and a spot at tornus. Hind wing pale crimson, the fringes of scales yellowish; a diffused fuscous apical patch.

Hab. AMAZONS, R. Javary

(Trail), 1 ♂ type. *Exp.* 18 millim.

SECT. III. Wings of male without fringes of scales; abdomen with large lateral tufts of flocculent scales on terminal segments.

766. *Callisthenia variegata*.

Cisthene variegata, Wlk. xxxi. 242 (1864); Kirby, Cat. Het. p. 290.

♂. Frons and antennæ purplish fuscous; palpi and vertex of head yellowish tinged with pink; tegulæ pale crimson; thorax



Fig. 279.—*Callisthenia variegata*, ♂. $\frac{3}{2}$.

yellowish white, with fuscous patches on patagia and mesothorax; legs yellowish and purplish fuscous; abdomen scarlet, the tufts of scales towards extremity yellowish, the ventral surface yellowish, banded with black. Fore wing yellowish white, the

veins strongly streaked with purplish black, interrupted by a post-medial band of the ground-colour defined by purplish-black lines, angled on discocellulars, meeting above inner margin, and bearing a crimson discoidal spot. Hind wing scarlet, with apical black patch narrowing to a point at vein 2.

Hab. AMAZONS, Ega (*Bates*), 1 ♂ type; PERU, Huayabamba (*Garlepp*). *Exp.* 18 millim.

Genus **ILLICE**.

	Type.
<i>Illice</i> , Wlk. xix. 1019 (1859)	<i>batialis</i> .
<i>Mæpha</i> , Wlk. xxx. 1013 (1864)	<i>opulentaria</i> .
<i>Byssophaga</i> , Stretch, Zyg. & Bomb. N. A. p. 48 (1878), non descr.	<i>faustinula</i> .
<i>Zonoda</i> , Schaus, J. N. Y. Ent. Soc. iv. p. 150 (1896)	<i>fasciata</i> .
<i>Ozodania</i> , Dyar, Psyche, 1899, p. 359.....	<i>schwarziorum</i> .

Proboscis fully developed; palpi upturned, slender, not reaching vertex of

head; antennæ of male with bristles and cilia; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from just beyond middle of cell, oblique; 3 from well before angle; 4, 5 separate; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle; 5 from above angle; 6, 7 stalked, rarely from cell; 8 from beyond middle of cell; the median nervure strongly pectinated on upperside at base.

SECT. I. (*Zanoda*). Hind wing with the tornus produced to a long acute lobe fringed on each side with long hair, the termen before the lobe and vein 2 on underside fringed with very long hair; the medial part of costa of hind wing on upperside and vein 1 of fore wing on underside fringed with very long scales.

- A. Hind wing crimson *dives*.
 B. Hind wing yellow *fasciata*.

767. *Illice dives*. (Plate XXIX. fig. 1.)

Zanoda dives, Schaus, J. N. Y. Ent. Soc. iv. p. 150 (1896).

♂. Head and thorax brown, sometimes tinged with purple; palpi except at tips, tegulæ, pectus, and greater part of legs yellow; abdomen crimson, the anal tuft with an orange tinge. Fore wing brown, suffused with purple and irrorated with golden scales; a pale yellow spot on costa beyond middle and a line from origin of vein 2 to inner margin, or a complete band. Hind wing crimson, the costal area pale yellow; a broad purplish-fuscous terminal band ending at the excision above the tornal lobe; cilia orange.

♀. Fore wing with small triangular spot on inner margin beyond middle; hind wing with the terminal band extending to tornus but narrowing below vein 2.

Hab. BRAZIL, São Paulo (*Jones*), 2 ♂, 1 ♀, Rio Janeiro. *Exp.* 20 millim. Type † in Coll. Schaus.

768. *Illice fasciata*.

Zanoda fasciata, Schaus, J. N. Y. Ent. Soc. iv. p. 150 (1896).

♂. Head and thorax brown; palpi at base, tegulæ, extremities of patagia, and the greater part of legs yellow; abdomen yellow.

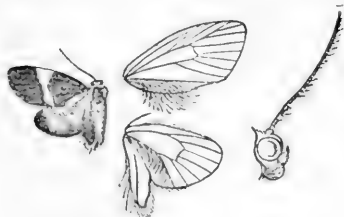


Fig. 280.—*Illice fasciata*, ♂. †.

Fore wing brown; a pale yellow patch on basal inner area; a postmedial triangular patch on costa, a small spot in submedian fold, sometimes larger and conjoined to the patch on costa. Hind wing yellow with brown apical patch; the lobe and its fringes immensely developed and brown above; vein 6 from below angle of cell.

♀. Fore wing with triangular yellow patch on inner margin beyond middle extending to vein 2. Hind wing with terminal

dark band narrowing to tornus, or the cilia only dark below vein 2.

Hab. BRAZIL, São Paulo, type † in Coll. Schaus, Castro Paraña, Rio Janeiro, 1 ♀. *Exp.* 26 millim.

SECT. II. (*Ozodania*). Hind wing of male with the tornus produced to a slight point, and with slight fold and fringe of hair.

A. Tegulae and markings of fore wing yellow.

a. Hind wing crimson, with terminal fuscous patch or band.

a¹. Head yellow.

a². Fore wing with the postmedial band crimson on inner margin *schwarziorum*.

b². Fore wing with the band not crimson on inner margin *unifascia*.

b¹. Head blackish *hilaris*.

b. Hind wing blackish, with more or less crimson on inner area..... *metoxia*.

B. Tegulae black, the markings of fore wing orange *phaeocephs*.

C. Tegulae and markings of fore wing whitish..... *polyzona*.

*769. *Illice schwarziorum*. (Plate XXIX. fig. 25.)

Ozodania schwarziorum, Dyar, Psyche, 1899, p. 359.

♂. Head, tegulae, and patagia pale yellow; thorax grey; abdomen crimson. Fore wing grey; a yellow-brown fascia on inner margin from base to the curved yellow postmedial band, which becomes crimson on inner area. Hind wing crimson, with apical grey patch narrowing to a point at vein 4.

Hab. MEXICO, Vera Cruz. *Exp.* 20 millim. This species is unknown to me; figured from a drawing from type in the U.S. Nat. Mus.

770. *Illice unifascia*.

Cisthene unifascia, Grote, Trans. Am. Ent. Soc. ii. p. 187, pl. ii. f. 61 (1868); Stretch, Zyg. & Bomb. N. Am. p. 156, pl. 7. f. 11; Druce, Biol. Centr.-Am., Het. i. p. 123; Kirby, Cat. Het. p. 289.

Cisthene tenuifascia, Harvey, Bull. Buff. Soc. iii. p. 4 (1875); Kirby, Cat. Het. p. 289.

Head and thorax orange, the thorax with a large fuscous-grey patch; fore and mid legs banded with black. Fore wing fuscous grey with a large orange patch on basal inner area conjoined to the postmedial band, which expands into large patches on costal and inner areas and is constricted at middle. Hind wing crimson,

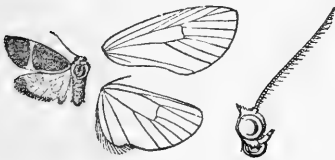


Fig. 281.—*Illice unifascia*, ♂. 1.

with small to very large apical fuscous patch.

Ab. 1. Thorax without fuscous patch.—Texas.

Ab. 2. Fore wing with the basal orange patch not conjoined to postmedial band.—Mexico.

Ab. 3. *tenuifascia*. Fore wing with the postmedial band narrow and slightly expanding at costa and inner margin.—Texas.

Ab. 4. Fore wing with the postmedial band interrupted at middle.—Alabama.

Ab. 5. Fore wing with yellow fascia on costa from base to apex, without expansion above the postmedial patch on inner area.

Ab. 6. Hind wing yellow.

Hab. U.S.A., New York, 3 ♂, Texas, 5 ♂, Alabama, 1 ♂, 1 ♀, Grote Coll.; MEXICO, Guerrero (*H. H. Smith*), 1 ♀ ab. 2, Durango (*Becker*) 1 ♀, Coatepec (*Brooks*) 1 ♀, Jalapa (*Hoege*) 1 ♀, Yucatan (*Gaumer*) 1 ♂, 1 ♀, Godman-Salvin Coll. *Exp.* 18-24 millim.

771. *Illice hilaris*.

Cisthene hilaris, Feld. Reis. Nov. pl. 139. f. 3 (1875); Kirby, Cat. Het. p. 289.

♀. Head and thorax fuscous brown; palpi, lower part of frons, and tegulæ yellow; legs orange-yellow marked with brown; abdomen crimson. Fore wing purplish brown; a golden-yellow patch at base of inner area, and a broad almost straight and erect band just beyond middle; the cilia yellow towards apex. Hind wing crimson, with terminal dark brown band broad at costa, narrowing to termen.

Hab. VENEZUELA, 1 ♀. *Exp.* 18 millim.

772. *Illice metoxia*.

Cisthene metoxia, Hmps. Trans. Ent. Soc. 1898, p. 243. pl. 17. f. 8.

Head and thorax fuscous, the vertex of head and tegulæ orange-yellow; palpi yellow at base; legs yellow banded with fuscous; abdomen deep crimson, the ventral surface yellow to near extremity. Fore wing fuscous; an orange-yellow patch on inner area from base to middle, with a crimson mark on the margin near base; a rounded patch at tornus, usually with some crimson on margin; the median and submedian nervures streaked with yellow; the costa from middle to apex and the termen yellow. Hind wing fuscous; the inner area crimson, expanding subterminally above tornus; a slight crimson streak usually present below vein 2.

Hab. ST. VINCENT, 1 ♀; GRENADA, 1 ♂, 1 ♀ (*H. H. Smith*), type. *Exp.* 16 millim.

773. *Illice phæoceps*, n. sp. (Plate XXIX. fig. 16.)

Cisthene unifascia, Druce, Biol. Centr.-Am., Het. ii. p. 395, part (nec Grote).

♂. Head and thorax black-brown; abdomen crimson. Fore wing black-brown, with very slight orange streak on basal half of

inner margin; a postmedial orange patch on inner margin extending up to vein 7, its inner side excised above. Hind wing deep crimson, with black-brown apical patch extending to vein 2.

Hab. MEXICO, Presidio (*Forrer*), 1 ♂ type, Salvin-Godman Coll. *Exp.* 16 millim.

774. *Illice polyzona*.

Cisthene polyzona, Druce, Biol. Centr.-Am., Het. i. p. 123, pl. 12. f. 13 (1885); Kirby, Cat. Het. p. 289.

♂. Head and thorax whitish; palpi and frons fuscous; abdomen crimson. Fore wing fuscous brownish; a yellowish-white patch tinged with pink on inner area from base to middle; a somewhat quadrate postmedial patch on costa extending to vein 6, and a triangular patch on inner margin extending up to vein 5, sometimes conjoined to the costal patch; the inner margin often crimson towards tornus. Hind wing pale crimson, with apical fuscous patch extending to vein 3.

♀. Hind wing with the fuscous extending more towards tornus.

Hab. MEXICO, Presidio (*Forrer*), 1 ♂ type, Godman-Salvin Coll.; DOMINICA (*W. H. Elliott*), 1 ♀; BRAZIL, Rio Janeiro. *Exp.* 16 millim.

SECT. III. Hind wing of male with the tornus not produced, and without fold and fringe of hair.

A. Abdomen of male with thick lateral and ventral tufts of long hair on terminal segments.

775. *Illice rosacea*.

Talara rosacea, Schaus, J. N. Y. Ent. Soc. iv. p. 148 (1896).

♂. Head and thorax grey; tegulæ pink; legs grey and pink;

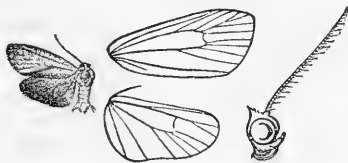


Fig. 282.—*Illice rosacea*, ♂. 1.

abdomen crimson. Fore wing bright pink, the area below the cell and vein 2 fuscous grey. Hind wing crimson.

Hab. BRAZIL, São Paulo (*Jones*), 2 ♂. *Exp.* 22 millim. Type † in Coll. Schaus.

B. (*Illice*). Abdomen of male without lateral tufts on terminal segments.

a. Fore wing with the ground-colour fuscous.

a¹. Abdomen crimson.

a². Fore wing with postmedial crimson patch on costa *subjecta*.

- b*². Fore wing without crimson patch on costa.
*a*³. Fore wing without transverse band.
*a*⁴. Fore wing with pinkish streak on basal half of inner margin; patagia pink at tips *striata*.
*b*⁴. Fore wing with pale yellow fascia on basal half of inner margin *calochroma*.
*c*⁴. Fore wing with whitish streak in submedian fold *minuta*.
*d*⁴. Fore wing with white postmedial patches on costa and inner margin *bisigna*.
*e*⁴. Fore wing with whitish postmedial patch on inner margin *plumbea*.
*b*⁵. Fore wing with irregular postmedial whitish band *tyres*.
*b*¹. Abdomen orange or yellowish.
*a*². Fore wing with yellow postmedial patches on costa and inner margin *ditrigona*.
*b*². Fore wing with postmedial irregular whitish or greyish band.
*a*³. Fore wing with apical white patch *petrova*.
*b*³. Fore wing without apical white patch.
*a*⁴. Hind wing pale yellow, with apical blackish patch *nexa*.
*b*⁴. Hind wing whitish, with apical fuscous patch. *batialis*.
*c*⁴. Hind wing grey-fuscous *faustinula*.
*c*². Fore wing uniform fuscous *orbonella*.
b. Fore wing with the ground-colour yellow-green *citrina*.
c. Fore wing with the ground-colour golden-yellow *opulentana*.
d. Fore wing black *ruficollis*.
e. Fore wing white *lactea*.

776. *Illice subjecta*.

Cisthene subjecta, Wlk. ii. 534 (1854); Kirby, Cat. Het. p. 289.

Hypoprepia packardii, Grote, Proc. Ent. Soc. Phil. ii. p. 31, pl. 2. f. 5 (1863); Kirby, Cat. Het. p. 289.

Head and thorax fuscous brown; vertex of head, basal joint of antennæ, tegulæ, and upper half of patagia crimson; abdomen crimson, the ventral surface brown except towards extremity. Fore wing fuscous brown; a crimson fascia in submedian fold from base to a large postmedial spot on inner margin, which is narrowly crimson from base to the spot; the costal edge pink, expanding into a narrow spot beyond the middle. Hind wing crimson, with large apical fuscous-brown patch angled inwards to origin of vein 5 and extending to vein 2; the cilia brown except at tornus.

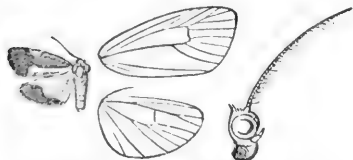


Fig. 283.—*Illice subjecta*, ♂. †.

Ab. 1. *packardii*. Fore wing with the postmedial spot large and rounded.

Hab. U.S.A., New York to Texas, 3 ♂, 1 ♀ type. *Exp*. 20 millim.

777. *Illice striata*. (Plate XXVIII. fig. 8.)

Cisthene striata, Ottoleng. Can. Ent. xxx. p. 101 (1898).

Head and thorax fuscous grey; a slight ring round neck and the upper edge of patagia pink; abdomen crimson, fuscous below to near extremity. Fore wing fuscous, usually with more or less grey suffusion or pale streaks in the interspaces; a narrow pale crimson streak along inner margin from base to a small postmedial spot; the costal edge narrowly pinkish. Hind wing pale crimson, with the costal area fuscous; a large apical fuscous patch, extending to lower angle of cell and vein 2, the cilia fuscous to near tornus.

Ab. 1. Hind wing with the fuscous on costal and apical areas reduced to a small patch at apex.

Ab. 2. Fore wing with small wedge-shaped postmedial spot on costa, on underside connected by a line with the spot on inner margin; hind wing without fuscous on costal area, the terminal band wide at costa, narrowing to a point near tornus.—Colorado, Glenwood Springs (*Barnes*), Coll. Schaus.

Hab. U.S.A., FLORIDA, Enterprise, 2 ♂, 2 ♀, Grote Coll., Miami; COLORADO, Glenwood Springs. *Exp.* 20–26 millim.

***778. *Illice calochroma*.** (Plate XXIX. fig. 28.)

Hipocrita calochroma, Snell. Bol. Ac. Cordoba, ii. p. 391 (1878); Kirby, Cat. Het. p. 291.

♂. Head and thorax fuscous; palpi except at tips, gulæ, and tegulæ orange; streaks behind antennæ orange-red; thorax edged with yellow tinged with crimson; pectus with some crimson in front; abdomen crimson. Fore wing fuscous, with pale yellow fascia on inner margin rather abruptly narrowing to tornus. Hind wing crimson, with terminal fuscous band broad at costa, narrowing to a point before tornus, its inner edge with a sinus between veins 2 and 5.

Hab. ARGENTINA, Cordoba, 1 ♂ type† in Coll. Snellen. *Exp.* 24 millim.

779. *Illice minuta*. (Plate XXIX. fig. 17.)

Cisthene minuta, Butl. Trans. Ent. Soc. 1877, p. 327; Kirby, Cat. Het. p. 289.

♀. Head and thorax grey; proboscis and tegulæ tinged with pink; abdomen crimson. Fore wing grey, with white stripe in submedian fold from base to termen. Hind wing crimson, the costal area and a large apical patch extending down to vein 2 fuscous, the termen and cilia fuscous to tornus.

Hab. COLOMBIA, Sta. Marta (*Bouchard*), 1 ♀ type. *Exp.* 16 millim.

***780. *Illice? bisigna*.**

Cisthene bisigna, Berg. Acta Acad. Nac. Cordoba, i. p. 75 (1875); Kirby, Cat. Het. p. 289.

♂. Head, thorax, legs, and ventral surface of abdomen fuscous

grey irrorated with white; tegulae yellow; abdomen dorsally crimson, irrorated with dark scales. Fore wing fuscous grey irrorated with white; postmedial white patches on costa and inner margin. Hind wing suffused with crimson, with a terminal grey band.

Hab. PATAGONIA, Carmen. *Exp.* 20 millim. This species is unknown to me.

***781. *Illice plumbea*. (Plate XXIX. fig. 4.)**

Cisthene plumbea, Stretch, Ent. Am. i. p. 102 (1885); Kirby, Cat. Het. p. 289.

♂. Head and thorax fuscous, almost entirely suffused with white; abdomen crimson, the ventral surface grey. Fore wing fuscous suffused with white; a somewhat triangular spot on inner margin towards tornus. Hind wing brownish fuscous with a slight grey tinge; a pale crimson patch on inner area extending up to the cell, its outer edge curved from lower angle to termen above tornus.

Hab. U.S.A., Texas, in U.S. Nat. Mus. *Exp.* 22 millim.

782. *Illice tyres*.

Lithosia tyres, Druce, Biol. Centr.-Am., Het. ii. p. 400, pl. 78. f. 14 (1897).

♂. Head, thorax, and fore wing grey, strongly irrorated with black; abdomen pale crimson. Fore wing with obscure antemedial black line from cell to inner margin, acutely angled on vein 1; an irregular white band just beyond middle, dentate on inner and outer sides below costa and diffused inwardly on inner area; some diffused subterminal dark patches. Hind wing pale crimson, with blackish apical patch narrowing to vein 2.

Hab. GUATEMALA, Dueñas (*Champion*), 1 ♂ type; NICARAGUA, Chontales (*Janson*), 1 ♂, Godman-Salvin Coll. *Exp.* 22 millim.

***783. *Illice ditrigona*. (Plate XXIX. fig. 8.)**

Mapha ditrigona, Schaus, J. N. Y. Ent. Soc. vii. p. 215 (1899).

♂. Head, thorax, and abdomen orange; frons, antennæ, shoulders, and a patch on thorax blue-black; legs banded with blue-black. Fore wing orange, suffused with purplish fuscous; the basal half with orange fascia below costa and broader fascia below cell reaching the inner margin at base; postmedial triangular orange patches on costa and inner margin, nearly conjoined. Hind wing orange, with apical black patch narrowing to vein 2.

♀. Fore wing with the ground-colour darker, the markings pale yellow, the postmedial patch on inner margin more rounded and widely separated from the costal patch.

Hab. BRAZIL, Novo Friburgo, 1 ♂, 1 ♀ type† in Coll. Schaus. *Exp.* 20 millim.

784. *Illice petrovna*.

Cisthene petrovna, Schaus, P. Z. S. 1892, p. 283; id. Am. Lep. pl. ii. f. 4.

♂. Head and thorax grey and black, the tegulæ and two spots at back of head yellow; abdomen orange-yellow. Fore wing grey, the veins streaked with black; a diffused white subbasal band with sinuous edges; a black-edged white medial band expanding above and below middle, and with black discoidal point on it; a large terminal white spot just below apex, and slight dentate marks on veins 5 to 2. Hind wing yellowish white, the terminal area fuscous, very broadly at costa and narrowing to tornus.

Hab. BRAZIL, Petropolis (*Dœr*), 1 ♂. *Exp.* 24 millim. Type † in Coll. Schaus.

785. *Illice nexa*.

Lithosia nexa, Boisd. Ann. Soc. Ent. Belge, xii. p. 74 (1868); Stretch, Zyg. & Bomb. N. Am. p. 49, pl. 2. f. 11; Kirby, Cat. Het. p. 290.

Cisthene grisea, Pack. Rep. Peabody Acad. Sci. iv. p. 84 (1872).

Pyralidia deserta, Feld. Reis. Nov. pl. 106. f. 23 (1874); Kirby, Cat. Het. p. 290.

♂. Head and thorax greyish fuscous; vertex of head and tegulæ yellowish white; abdomen pale yellowish. Fore wing fuscous grey, with small pale yellow patch at base of inner area; a yellowish slightly oblique postmedial band from vein 5 to inner margin, constricted in submedian fold. Hind wing pale yellow, with large apical fuscous-brown patch extending down to vein 2.

Hab. U.S.A., California, 1 ♂, Grote Coll. *Exp.* 22 millim. Type † *deserta* in Coll. Rothschild.

786. *Illice batialis*. (Plate XXIX. fig. 2.)

Illice batialis, Wlk. xix. 1019 (1859).

Scoparia stupidalis, Wlk. Trans. Ent. Soc. (3) i. p. 127 (1862).

Head and thorax grey, irrorated with black; abdomen whitish. Fore wing grey, irrorated with black; an irregular diffused black antemedial line angled inwards in cell and outwards on median nervure; a minutely dentate postmedial line strongly bent outwards below costa, then oblique; an obscure dentate subterminal line diffused to postmedial line and termen on inner area; a terminal series of points. Hind wing whitish, the apical area suffused with fuscous.

Hab. BRAZIL, Rio Janeiro, 2 ♂, 2 ♀, São Paulo (*Jones*), 1 ♂, 2 ♀. *Exp.*, ♂ 25, ♀ 32 millim. Type and type *stupidalis* in Mus. Oxon.

787. *Illice faustinula*.

Lithosia faustinula, Boisd. Ann. Soc. Ent. Belge, xii. p. 73 (1863); Stretch, Zyg. & Bomb. N. Am. p. 48, pl. 2. f. 10; Kirby, Cat. Het. p. 290.

Cisthene fusca, Stretch, Zyg. & Bomb. N. Am. p. 49 (1872).

Pale grey-brown. Fore wing irrorated with dark scales; a paler grey postmedial band slightly constricted below costa and

more strongly at vein 4, then widely expanding to inner margin. Hind wing paler grey-brown, irrorated with dark scales.

Hab. U.S.A., California, 2 ♂, 1 ♀, Grote Coll. *Exp.* 24 millim.

788. *Illice orbonella*. n. sp. (Plate XXIX. fig. 32.)

♂. Head and thorax pale grey-brown; palpi, except at tips, back of head, and tegulæ orange-yellow; pectus and legs yellow, the fore and mid legs streaked with fuscous; abdomen orange, with the genital tufts white. Fore wing pale grey-brown, the costal edge yellow beyond middle. Hind wing orange-yellow, with terminal blackish band narrowing from apex to tornus.

Hab. BRAZIL, Castro Paraña, Rio Janeiro, 2 ♂, type. *Exp.* 24 millim.

789. *Illice citrina*.

Cisthene citrina, Druce, Biol. Centr.-Am., Het. i. p. 124, pl. 12. f. 14 (1885); Kirby, Cat. Het. p. 291.

♂. Head and thorax pale golden green; palpi and proboscis yellow; frons, antennæ, and patches on vertex of head, shoulders, and metathorax black; legs black and yellow; abdomen orange. Fore wing pale golden green; the costa black to the antemedial line, which is dentate outwards on median nervure and vein 1; the postmedial line black, acutely angled outwards at vein 5, where it gives rise to a curved streak to termen, then incurved; the costa black from postmedial line to apex; the cilia black. Hind wing orange-yellow, with apical black patch extending down to vein 2.

Hab. PANAMA, Chiriqui (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 20 millim.

790. *Illice opulentana*. (Plate XXVIII. fig. 19.)

Mapha opulentana, Wlk. xxx. 1014 (1864); Kirby, Cat. Het. p. 290.

♂. Palpi and frons deep blue; vertex of head and tegulæ dull metallic green; antennæ yellow, ringed with black; thorax golden yellow, with deep blue patch on prothorax; abdomen yellowish white, the lateral tufts on median segments orange, the ventral surface grey. Fore wing golden yellow; an antemedial deep blue band formed by three wedge-shaped patches; an elliptical deep blue spot at lower angle of cell. Hind wing greyish ochreous, with terminal fuscous band narrowing from costa to tornus. Underside of fore wing with medial black patch on costa extending to median nervure, and broad band from costa before apex to termen from vein 5 to tornus.

♀. Abdomen crimson above, with the anal tuft yellow; fore wing with additional blue spot above middle of vein 3; hind wing crimson, with the terminal black band much broader.

Hab. AMAZONS, Ega (*Bates*), 1 ♂ type, Espiritu Santo, 1 ♀; BOLIVIA, Songo (*Garlepp*). *Exp.* 20 millim.

*791. *Illice ruficollis*. (Plate XXIX. fig. 5.)

Talara ruficollis, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).

Fuscous black with a slight bluish tinge; 1st joint of palpi, back of head, and tegulae orange.

Hab. BRAZIL, São Paulo, Castro Paraña (*Jones*), type † in Coll. Schaus. *Exp.* 22 millim.

*792. *Illice lactea*. (Plate XXIX. fig. 26.)

Cisthene lactea, Stretch, Ent. Am. i. p. 103 (1883); Kirby, Cat. Het. p. 289.

♂. White; palpi black; antennae brown. Fore wing with antemedial fuscous points on costa and in submedian fold; medial and postmedial points on costa; a discoidal point and one sub-terminal above vein 1. Underside suffused with fuscous.

Hab. CALIFORNIA, Bernardino Co., Mt. Providence. *Exp.* 18 millim. This species is unknown to me; figured from a drawing from type sent by Prof. Dyar.

Genus **METALOBOSIA**, nov.

Type, *M. cuprea*.

Proboscis fully developed; palpi porrect, not reaching as far as frons; antennae laminate and dilated towards base, of male with long bristles and cilia; tibiae with the spurs moderate; abdomen with thick lateral tufts of hair towards extremity. Fore wing long and narrow; vein 2 from towards angle of cell, curved at base; 3 and 5 from or from close to angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 stalked; 8 from middle of cell; the base of median nervure with thick fringe of hair on upperside; the termen in male produced to a point at vein 1.

SECT. I. Fore wing of male with the inner margin strongly lobed at middle; hind wing with the tornal area slightly produced; with a strong fold on underside above vein 1 containing fringes of rough scales.

- | | |
|---|------------------|
| A. Head, thorax, and fore wing golden green | <i>anitras</i> . |
| B. Head, thorax, and fore wing purplish brown | <i>elis</i> . |

*793. *Metalobosia anitras*.

Odozana anitras, Dognin, Læ Nat. xiii. p. 126 (1891); id. Lép. Loja, p. 88, pl. 9. f. 5; Kirby, Cat. Het. p. 292.

♂. Head and thorax metallic golden green; legs mostly purple-blue; abdomen fuscous, with the tufts of hair yellow; a little blue on middle of dorsum. Fore wing golden green. Hind wing fuscous brown slightly tinged with blue.

♀. Blue-green; antennae white at tips; hind wing shot with cupreous green.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.*, ♂ 24, ♀ 30 millim.

794. *Metalobosia elis*.

Odozana elis, Druce, Biol. Centr.-Am., Het. i. p. 125, pl. 12. f. 19 (1885); Kirby, Cat. Het. p. 292.

♂. Fuscous brown with a slight purplish tinge; the genital tufts orange. Hind wing slightly paler brown.



Fig. 284.—*Metalobosia elis*, ♂. 1.

♀. Head and thorax with a bronze-green tinge; fore wing cupreous brown, the basal half suffused with purplish, the inner margin suffused with bronze-green, extending to submedian fold at middle; hind wing black-brown.

Hab. GUATEMALA, Cerro Zunil (*Champion*), 1 ♂ type, Godman-Salvin Coll.; BRAZIL, São Paulo (*Jones*), 1 ♀, Castro Paraña. *Exp.* 24 millim.

SECT. II. Fore wing of male with the inner margin evenly curved; hind wing with the tornal area much produced and without fold and fringe of scales.

- A. Hind wing crimson, the apical patch extending to vein 1..... *varda*.
 B. Hind wing orange tinged with crimson, the apical patch not extending below vein 5 *cuprea*.

*795. *Metalobosia varda*. (Plate XXVIII. fig. 15.)

Odozana varda, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).

♂. Head, thorax, and fore wing black-brown suffused with cupreous and purple; abdomen crimson, the ventral surface black to near extremity. Hind wing crimson, becoming orange towards inner margin; a terminal blackish band, very wide at costa, narrowing to vein 1.

Hab. BRAZIL, São Paulo, Castro Paraña (*Jones*), type† in Coll. Schaus. *Exp.* 22 millim.

796. *Metalobosia cuprea*.

Odozana cuprea, Schaus, J. N. Y. Ent. Soc. iv. p. 150 (1896).

♂. Head and thorax brown suffused with greyish fuscous; abdomen crimson, orange towards base, the ventral surface blackish to near extremity. Fore wing golden cupreous. Hind wing pale crimson, with apical brown patch extending down to vein 2.



Fig. 285.—*Metalobosia cuprea*, ♂. 1.

Hab. BRAZIL, São Paulo (*Jones*), 3 ♂. *Exp.* 24 millim. Type† in Coll. Schaus.

Genus **NODOZANA**, nov.

Type, *N. thricophora*.

Proboscis fully developed; palpi porrect, reaching just beyond the frons; antennæ of male with bristles and cilia; tibiæ with the spurs rather long; claspers of male thickly tufted with hair. Fore wing with vein 2 from well beyond middle of cell; 3 from close to angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 from cell; male with the underside of both wings clothed with rough scales. Hind wing with vein 2 from well beyond middle of cell; 3, 4 from angle; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

SECT. I. Fore wing of male with a slight fold and fringe of hair on basal half of costa below, ending in a slight swelling and tuft of hair.

A. Hind wing of male with a large fringe of hair on underside below the cell.

797. *Nodozana thricophora*, n. sp.

Cisthene polyzona, Druce, Biol. Centr.-Am., Het. i. p. 123 (1885), part.

♂. Head and thorax dark brown, the vertex, tegulæ, and patagia orange-yellow; legs orange, fore legs striped with blue-black; abdomen crimson. Fore wing black-brown; a large orange-yellow patch below the cell from base to middle, not quite reaching inner margin except at base; a triangular post-medial patch on inner margin extending to lower angle of cell; a similar patch on costa ending in a crimson spot at vein 5. Hind wing crimson, with terminal blackish band narrowing to a point near tornus.



Fig. 286.

Nodozana thricophora, ♂. ♀.

Hab. PANAMA, Chiriqui, Caldera, 1200 ft. (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 16 millim.

B. Hind wing of male without fringe of hair on underside.

798. *Nodozana rhodosticta*.

Cisthene rhodosticta, Butl. Trans. Ent. Soc. 1878, p. 53; Kirby, Cat. Het. p. 289.

Mæpha coresa, Schaus, J. N. Y. Ent. Soc. iv. p. 148 (1896).

♂. Head fuscous, the vertex usually yellowish white; tegulæ



Fig. 287.—*Nodozana rhodosticta*, ♂. ♀.

and patagia yellowish white; thorax fuscous; pectus and legs

yellow, fore legs streaked with blue-black; abdomen crimson. Fore wing fuscous brown, with large yellowish-white patch from cell to inner margin on basal half, its outer edge obliquely curved; a postmedial yellowish-white band expanding to costa and inner margin and constricted at middle, where there is a crimson spot. Hind wing crimson, the cilia blackish.

♀. Fore wing with the outer edge of the postmedial band produced to a slight tooth beyond the crimson spot; hind wing with the termen and cilia black, or with apical black patch extending to vein 2 only.

Hab. BRAZIL, Amazons, R. Purus (*Trail*), 1 ♀ type, Fonteboa, Theresopolis, 1 ♂, São Paulo (*Jones*), 4 ♂, 2 ♀. *Exp.* 16 millim. Type † *coresa* in Coll. Schaus.

SECT. II. Fore wing of male without costal fold and tuft of hair.

A. Fore wing of male with a large patch of androconia in and beyond end of cell on underside.

***799. *Nodozana fifi*.**

Odozana fifi, Dognin, Le Nat. xiii. p. 126 (1891); id. Lép. Loja, p. 88, pl. 9. f. 4; Kirby, Cat. Het. p. 292.



Fig. 288.—*Nodozana fifi*, ♂. †.

♂. Black-brown; head, tegulæ, and neck crimson; antennæ black, whitish at tips. Hind wing crimson, with the costal, inner, and terminal areas broadly black, the terminal band narrower on underside.

Hab. ECUADOR, Loja, type † ♂ in Coll. Dognin. *Exp.* 24 millim.

B. Fore wing of male without patch of androconia on underside.

***800. *Nodozana xanthomela*.**

Nodozana xanthomela, Druce, A. M. N. H. (7) iii. p. 467 (1899).



Fig. 289.—*Nodozana xanthomela*, ♂. †.

Head and thorax orange-yellow; antennæ black, the tips white; pectus and legs black; abdomen black, with the medial tuft of hair on elaspers ochreous. Fore wing with the basal half orange-yellow, the terminal half black. Hind wing black, the basal half of costal area yellow.

Hab. AMAZONS (*Bates*), 1 ♂ type † in Mus. Oxon., Fonteboa. *Exp.* 18 millim.

Genus **SERIPHA.**

Type.

Seripha, Wlk. ii. 441 (1854)..... *cælicolor*.*Colletria*, Nolk. & Zell. Hor. Ent. Soc. Ross. xii. p. 76 (1876)..... *cælicolor*.

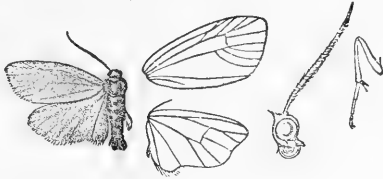
Proboscis fully developed; palpi porrect, extending just beyond the frons; antennæ of male laminate, the medial part of shaft dilated; hind tibiae with the medial spurs absent; abdomen of male with subdorsal tufts of long hair recurved towards thorax, the anal tufts largely developed. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle; 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident; 5 from just below middle of discocellulars; 6, 7 shortly stalked; 8 from middle of cell.

SECT. I. Antennæ of female with the medial part of shaft very strongly dilated; hind wing of male with the tornal area lobed and fringed with long hair; a tuft of hair on underside near middle of inner margin.

801. *Seripha pyrrhocrocis*.*Colletria pyrrhocrocis*, Feld. Reis. Nov. pl. 139. f. 7 (1875); Nolk. & Zell.

Hor. Ent. Soc. Ross. xii. p. 80, pl. iii. (1876); Kirby, Cat. Het. p. 901.

Uniform metallic silvery blue; antennæ white towards tips;

Fig. 290.—*Seripha pyrrhocrocis*, ♂. $\frac{3}{2}$.

male with the tufts of hair on abdomen and inner margin of hind wing orange. Hind wing rather more purplish blue.

Hab. COLOMBIA, Bogotá, Zell. Coll., 11 ♂, 6 ♀, type. *Exp.* 22 millim.

SECT. II. Antennæ with the shaft less dilated at middle; hind wing of male with the tornal area not lobed and without tuft of hair on inner margin.

802. *Seripha cælicolor*.*Seripha cælicolor*, Wlk. ii. 441 (1854); Kirby, Cat. Het. p. 87.

Silvery metallic blue; male with the tufts of hair on abdomen

Fig. 291.—*Seripha cælicolor*, ♂. $\frac{3}{2}$.

fulvous. Hind wing rather more purplish blue.

Hab. VENEZUELA, 1 ♂, 3 ♀, type. *Exp.* 18 millim.

Genus **UROZANA**, nov.Type, *U. cordatula*.

Proboscis fully developed; palpi minute, not extending as far as the thick frontal tuft; antennæ of male with very long bristles and cilia; tibiæ with the spurs minute, hind tibiæ with the medial spurs absent; abdomen with lateral tufts of hair on terminal segments, the claspers of male very long. Fore wing long and narrow; vein 2 from towards angle of cell, curved at base, 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with tornal area produced to a large lobe; vein 2 from towards angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

803. *Urozana cordatula*.

Odozana cordatula, Druce, Biol. Centr.-Am., Het. i. p. 125, pl. 12. f. 20 (1885); Kirby, Cat. Het. p. 292.

♂. Head and thorax cupreous black; abdomen orange-red, with dorsal black patches on 1st and 5th segments, the ventral surface black to near extremity; the anal tuft brownish at extremity. Fore wing purple-brown, with diffused dark green suffused streaks on terminal area extending to middle of wing on inner area. Hind wing deep orange, the apical area black, narrowing to a point at vein 2.



Fig. 292.—*Urozana cordatula*, ♂. 1.

Hub. GUATEMALA, Las Mercedes, El Zumbador (*Champion*), 2♂, type, Godman-Salvin Coll. *Exp.* 22 millim.

Genus **LYCOMORPHODES**, nov.Type, *L. strigosa*.

Proboscis fully developed; palpi porrect, not extending beyond the frons; antennæ ciliated, the shaft more or less thickened with scales; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from just beyond middle of cell; 3 from close to or from angle or shortly stalked with 4, 5, which are sometimes coincident; 6 from below upper angle; 7, 8, 9 stalked, 8, 9 sometimes coincident; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from well beyond middle of cell; 3, 4 stalked; 5 absent; 6, 7 coincident; 8 from towards angle of cell.

SECT. I. Fore tibiæ of male with a large tuft of hair.

804. *Lycomorphodes bipartita*.

Lycomorpha bipartita, Wlk. xxxv. 1871 (1866); Kirby, Cat. Het. p. 290.

♂. Black-brown; vertex of head, basal joint of antennæ, and a dorsal stripe on tegulæ and thorax orange; legs black and orange, 1st joint of tarsi whitish; abdomen with some orange hair at base and

in anal tuft. Fore wing bluish black, with orange streak in basal half of cell; a pale yellow postmedial band expanding on costa and



Fig. 293.—*Lycomorphodes bipartita*, ♂. †.

inner margin and dentate at lower angle of cell on outer side. Hind wing with the basal area yellowish, extending on costa to near apex.

♀. Fore wing with the basal streak extending to costa.

Fore wing with veins 4, 5 sometimes coincident.

Hab. AMAZONS, Pará (Bates), 1 ♀ type, (Austen) 1 ♂, 1 ♀. *Exp.* 22–24 millim.

SECT. II. Fore tibiae of male without tuft of hair.

A. Fore wing blue-black, with orange postmedial band *suspecta*.

B. Fore wing with the basal area orange.

a. Antennæ with the shaft strongly thickened with scales; fore wing with terminal third strongly suffused with black *strigosa*.

b. Antennæ with the shaft hardly dilated with scales; fore wing with the terminal area slightly suffused with black. *sordida*.

805. *Lycomorphodes suspecta*.

Cisthene suspecta, Feld. Reis. Nov. pl. 138. f. 45 (1875); Kirby, Cat. Het. p. 290.

♂. Head, thorax, and fore wing blue-black; vertex of head and a stripe on tegulæ orange; the 1st joint of tarsi yellow; abdomen black, the anal tuft with some ochreous hair. Fore wing with orange streak on base of costa, sometimes conjoined to the postmedial band, which is dentate on outer side at lower angle of cell. Hind wing black, with slight yellow mark on costa beyond middle.



Fig. 294.

Lycomorphodes suspecta, ♂. †.

Hab. BRAZIL, Espirito Santo, 1 ♂, São Paulo (Jones), 1 ♂. *Exp.* 20–22 millim. Type † in Coll. Rothschild.

806. *Lycomorphodes strigosa*. (Plate XXVIII. fig. 32.)

Trichromia strigosa, Butl. Trans. Ent. Soc. 1877, p. 328; Kirby, Cat. Het. p. 290.

Lycomorpha fumata, Möschl. Abhandl. Senckenb. Ges. xvi. p. 114 (1890); Kirby, Cat. Het. p. 116.

Head, thorax, and abdomen black-brown; vertex of head and a stripe on tegulae and thorax orange; tarsi with the 1st joint whitish. Fore wing orange; the costa streaked with black towards base; the interspaces suffused with fuscous; the terminal third strongly suffused with black; veins 5 and 6 streaked with orange. Hind wing black-brown.

Antennae with the shaft strongly dilated with scales.

Hab. Porto Rico, type *fumata* in Coll. Staudinger; BRAZIL, Espiritu Santo, 1 ♀ type, São Paulo (*Jones*), 1 ♂. *Exp.* 18 millim.

807. **Lycomorphodes sordida.** (Plate XXVIII. fig. 31.)

Leptidule sordida, Butl. Trans. Ent. Soc. 1877, p. 369; Druce, Biol. Centr.-Am., Het. i. p. 138; Kirby, Cat. Het. p. 355.

Talara coccinea, Druce, Biol. Centr.-Am., Het. i. p. 125 (nec Butl.).

♂. Head and thorax orange; palpi, frons, antennae, and stripes on tegulae and patagia black; legs blackish, the 1st joint of mid and hind tarsi whitish; abdomen blackish, the genital tufts ochreous. Fore wing orange, the termen slightly tinged with black or with prominent dentate marks. Hind wing fuscous, with orange fascia on costa to near apex and a slight streak on median nervure, or orange with diffused fuscous streaks on inner and terminal areas.

♀. Head, thorax, and fore wing orange-red, the last with the interspaces tinged with fuscous and with blue-black spot on middle of costa.

Hab. MEXICO, Vera Cruz (*H. H. Smith*), 1 ♂; GUATEMALA, Caldera (*Champion*), 1 ♂, 1 ♀; COSTA RICA (*Underwood*), 1 ♀; PANAMA, Bugaba (*Champion*) 1 ♂, Godman-Salvin Coll.; COLOMBIA, Sta. Marta (*Boucard*), 1 ♂ type. *Exp.*, ♂ 20-22, ♀ 26 millim.

Genus **TALARA.**

Talara, Wlk. xxxv. 1891 (1866) Type.
..... *megaspila*.

Proboscis fully developed; palpi porrect, extending just beyond the frons; antennae of male ciliated; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing long and narrow; vein 2 from beyond middle of cell; 3 from well before angle; 4, 5 from angle or separate; 6 from below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from well beyond middle of cell; 3, 4 from angle or stalked; absent; 6, 7 coincident; 8 from or from beyond middle of cell.

SECT. I. Hind wing with veins 3, 4 stalked.

- | | |
|---|--------------------|
| A. Fore wing yellow, with ante- and postmedial black lines, the veins streaked with crimson | <i>ditis</i> . |
| B. Fore wing without transverse lines. | |
| a. Hind wing yellow | <i>barema</i> . |
| b. Hind wing crimson | <i>leucocera</i> . |
| c. Hind wing with the basal half crimson, the terminal half fuscous; fore wing white..... | <i>niveata</i> . |
| d. Hind wing wholly fuscous..... | <i>cinerea</i> . |

808. *Talara ditis*.

Mæpha ditis, Butl. P. Z. S. 1878, p. 385; Kirby, Cat. Het. p. 291.

Orange; palpi, antennæ, tegulæ, and patagia tinged with scarlet; extremities of tibiæ and tarsi ringed with black. Fore wing with the veins streaked with scarlet; diffused black streaks on base of

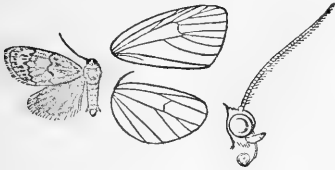


Fig. 295.—*Talara ditis*, ♂. $\frac{3}{2}$.

costa and subcostal nervure and some diffused scales before the fine medial black line, which is angled outwards below costa and on median nervure and inwards in submedian fold, then bent outwards to inner margin; the postmedial line waved and produced to a tooth above vein 5; a sub-

terminal series of small diffused spots, curved from costa to vein 5, then almost conjoined to the postmedial line. Hind wing tinged with crimson.

Hab. BRAZIL, Espiritu Santo, type ♂, São Paulo (*Jones*), 3 ♂, 2 ♀. *Exp.* 14–16 millim.

*809. *Talara barema*. (Plate XXVIII. fig. 21.)

Talara barema, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).

♂. Head and thorax whitish tinged with brown; abdomen yellow. Fore wing whitish, suffused with brown and irrorated with black; a patch of blackish suffusion in and below cell just beyond middle, and traces of a similar patch beyond the discocellulars. Hind wing pale yellow.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♂ type in Coll. Schaus. *Exp.* 18 millim.

*310. *Talara leucocera*. (Plate XXVIII. fig. 22.)

Talara leucocera, Druce, A. M. N. H. (7) iii. p. 467 (1899).

♂. Head and thorax yellowish white tinged with brown; antennæ almost white; abdomen crimson. Fore wing pale ochreous, irrorated and suffused with red-brown; traces of a dark discoidal spot. Hind wing pale crimson.

Hab. BRAZIL, Espiritu Santo, 2 ♂, type † in Mus. Oxon. *Exp.* 18 millim.

811. *Talara niveata*. (Plate XXVIII. fig. 28.)

Cisthene niveata, Butl. P. Z. S. 1878, p. 384; Kirby, Cat. Het. p. 289.

♂. Head and thorax white, with some fuscous on frons, tegulæ, thorax, and shoulders; palpi and fore legs fuscous; abdomen pale

crimson, the ventral surface whitish. Fore wing white, irrorated with a few blackish scales which form diffused patches below base of cell and on inner margin beyond middle. Hind wing fuscous, with pale crimson patch on inner area from base to beyond middle.

Hab. BRAZIL, Espiritu Santo, 1 ♂ type. *Exp.* 18 millim.

812. *Talara cinerea*, n. sp. (Plate XXVIII, fig. 24.)

♀. Fuscous suffused with grey. Fore wing irrorated with black scales. Abdomen and hind wing dark fuscous.

Hab. COLOMBIA, Sta. Marta (*Bouchard*), 1 ♀ type. *Exp.* 18 millim.

SECT. II. Hind wing with veins 3, 4 from cell.

- | | |
|---|--------------------|
| A. Fore wing scarlet. | |
| a. Fore wing with large black patches before middle and at tornus | <i>megaspila</i> . |
| b. Fore wing without black antemedial and terminal patches | <i>coccinea</i> . |
| B. Fore wing rufous | <i>rufa</i> . |
| C. Fore wing fuscous grey. | |
| a. Hind wing with the basal half crimson | <i>rufibasis</i> . |
| b. Hind wing without crimson | <i>grisea</i> . |
| D. Fore wing fuscous, with antemedial and subterminal whitish lines. | |
| a. Fore wing with the subterminal line acutely angled on vein 6 | <i>bombycia</i> . |
| b. Fore wing with the subterminal line excurved at middle | <i>phælla</i> . |

813. *Talara megapila*.

Talara megapila, Wlk. xxxv. 1891 (1866); Kirby, Cat. Het. p. 291.

♂. Head, thorax, and first segment of abdomen orange-red, the rest of abdomen brown; legs banded with brown. Fore wing orange-red; a large conical black patch before middle from inner margin to just below costa with deep blue streaks in cell and submedian fold; an elongate spot on costa towards apex; a large patch on termen from vein 6 to tornus extending nearly to the cell, and with some deep blue suffusion near its upper angle.



Fig. 296.—*Talara megapila*, ♂. $\frac{3}{2}$.

Hind wing black-brown, with the base crimson.

Hab. AMAZONS, Ega (*Bates*), 1 ♂ type. *Exp.* 20 millim.

814. *Talara coccinea*. (Plate XXVIII, fig. 18.)

Talara coccinea, Butl. Trans. Ent. Soc. 1877, p. 329; Kirby, Cat. Het. p. 291.

♀. Head and thorax bright crimson; antennæ blackish except

towards base; abdomen black-brown. Fore wing scarlet, turning to orange on apical half of costal area; an elongate black spot with some blue scales on it on costa beyond middle; the termen tinged with greyish. Hind wing black-brown, the base crimson.

Hab. AMAZONS, Villa Nova (*Bates*), 1 ♀ type. *Exp.* 20 millim.

*815. *Talara rufa*. (Plate XXVIII. fig. 30.)

Talara rufa, Schaus, J. N. Y. Ent. Soc. vii. p. 214 (1899).

♀. Head and thorax rufous; abdomen reddish orange. Fore wing pale rufous, thickly irrorated with dark rufous; a slight oblique black line from middle of cell to inner margin before middle; some dark scales representing the subterminal line; a terminal black line from vein 4 to 1; cilia chequered black and whitish. Hind wing orange-yellow with a pinkish tinge.

Hab. BRAZIL, Castro Paraña (*Jones*), 1 ♀ type † in Coll. Schaus. *Exp.* 20 millim.

816. *Talara rufibasis*.

Cisthene rufibasis, Feld. Reis. Nov. pl. 139. f. 4 (1875); Kirby, Cat. Het. p. 289.

Head and thorax black, irrorated with grey and slightly tinged with purple; gulæ and neck orange; legs blue-black; abdomen crimson, the anal tufts ochreous, the ventral surface blue-black. Fore wing fuscous black irrorated with grey, leaving slight dark streaks on costa and inner margin and in discal and submedian folds, and a very obscure diffused postmedial band. Hind wing fuscous, with crimson patch from base extending to end of cell and tornus except on costal area.

Hab. PANAMA, La Chorrera (*Dolby-Tylor*), 1 ♂; COLOMBIA, Bogotá, type † ♀ in Coll. Rothschild. *Exp.* 18 millim.

817. *Talara grisea*. (Plate XXVIII. fig. 17.)

Talara grisea, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).

♂. Head and thorax fuscous grey; abdomen pale crimson. Fore wing fuscous grey. Hind wing whitish, tinged with fuscous towards margins.

Hab. BRAZIL, São Paulo (*Jones*), 2 ♂. *Exp.* 18 millim. Type † in Coll. Schaus.

*818. *Talara bombycia*. (Plate XXVIII. fig. 27.)

Talara bombycia, Schaus, J. N. Y. Ent. Soc. iv. p. 149 (1896).

♂. Head, thorax, and abdomen fuscous brown, the last whitish at base. Fore wing fuscous brown; a whitish antemedial line slightly angled outwards below costa and acutely on median nervure, and angled inwards on vein 1; the medial area whitish towards

the subterminal white line, which is acutely angled outwards on vein 6, then incurved; a minute discoidal point. Hind wing fuscous.

Hab. BRAZIL, São Paulo (*Jones*), 1 ♂ type † in Coll. Schaus. *Exp.* 18 millim.

819. *Talara phæella*, n. sp. (Plate XXVIII. fig. 23.)

♀. Dark fuscous brown. Fore wing irrorated with greyish; a very obscure antemedial whitish line angled on median nervure and bent outwards from submedian fold to inner margin; a short dark streak in lower end of cell; a pale subterminal line excurved from below costa to vein 3. Hind wing deep fuscous.

Hab. PANAMA, La Chorrera (*Dolby-Tylor*), 1 ♀ type. *Exp.* 14 millim.

Genus **BARSINELLA**.

Barsinella, Butl. P. Z. S. 1878, p. 385..... Type. *mirabilis*.

Proboscis fully developed; palpi porrect, hardly reaching as far as frons; antennæ of male with cilia and bristles; tibiæ with the spurs moderate; abdomen with large lateral tufts on terminal segments. Fore wing short and broad; vein 2 from towards end of cell, curved; 3 from well before angle; 5 from above angle; 6 from long below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12, which is angled to meet it; male with a costal fold, a slight swelling at middle of costa, with large tufts of downturned hairs just beyond it below the costa and in end of cell, and a slight fringe on basal half of vein 2 on underside. Hind wing with vein 2 from near angle of cell; 3, 4 coincident; 5 from long above angle; 6, 7 on a long stalk; 8 from beyond middle of cell; male with a fringe of very long hair on basal half of costa.

820. *Barsinella mirabilis*.

Barsinella mirabilis, Butl. P. Z. S. 1878, p. 385; Kirby, Cat. Het. p. 303.

♂. Head, thorax, and abdomen orange; antennæ black except at base; black points on shoulders and just behind tegulæ; fore and mid tibiæ banded with black and the extremity of tarsi black. Fore wing orange; two black points at base, a tridentate antemedial line from subcostal nervure to inner margin almost interrupted in places and followed by a fine irregularly sinuous line; a curved crimson discoidal line with tail from its lower extremity; a fine black post-medial line, dentate from below costa to vein 2, ending near tornus and followed by a curved series of black points; a reddish terminal line: cilia golden yellow, black at tornus. Hind wing crimson, the costa yellowish. Underside of fore wing with the basal half of costal fold deep black.



Fig. 297.—*Barsinella mirabilis*, ♂.

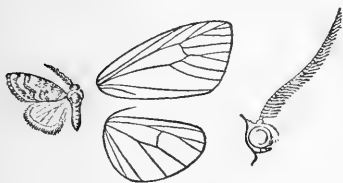
Hab. BRAZIL, Espiritu Santo, 1 ♂ type. *Exp.* 16 millim.

Genus **NOLOSIA**, nov.Type, *N. marmorata*.

Proboscis absent; palpi minute; frons clothed with rough scales; antennæ of male bipectinate, with long branches; femora and tibiae clothed with long hair, the spurs moderate. Fore wing narrow; vein 2 from just beyond middle of cell; 3 from before angle; 4, 5 stalked; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 free. Hind wing with vein 2 from towards end of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from towards end of cell.

821. *Nolosia marmorata*, n. sp.

♂. Head, thorax, and abdomen grey largely mixed with black-brown hair. Fore wings silvery white irrorated with black-brown; very ill-defined antemedial and medial bands, more strongly irrorated with black-brown and with sinuous edges; a discoidal point; a postmedial spot on costa and a sinuous band from vein 5 to inner margin; an obscure dentate subterminal line, and

Fig. 298.—*Nolosia marmorata*, ♂. 1.

fine terminal line. Hind wing with a slight yellowish tinge; traces of diffused medial and subterminal brown lines.

Hab. MADAGASCAR, Betsileo (*Cowan*), 2 ♂, type. *Exp.* 18 millim.

Genus **ÆTHOSIA**, nov.Type, *Æ. ectrocta*.

Proboscis fully developed; palpi porrect, reaching as far as frons, which is rounded; antennæ of male with bristles and cilia; tibiae with the spurs moderate. Fore wing narrow; the costa arched, the inner margin excised at tornus; vein 1 sinuous; 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6 from below upper angle; 7, 8, 9 stalked; 7 from beyond 9; 10, 11 free, 11 curved and approximated to 12; male with an elliptical patch of androconia on underside above and below median nervure from before middle to end of cell. Hind wing with the costa strongly arched, the termen excurved between veins 7 and 1; vein 2 from beyond middle of cell; 3, 4 shortly stalked; 5 absent; 7 from well before angle of cell; 8 from before middle of cell; male with an elliptical patch of androconia on upperside below costa from before middle to origin of vein 7; a tuft of hair on inner margin near base.

822. *Æthosia ectrocta*, n. sp.

♂. Head and thorax ochreous white, irrorated with black; palpi black; abdomen tinged with pink. Fore wing ochreous white, irrorated with black; a black point on costa near base; a waved antemedial line bent inwards to costa and obsolete towards inner margin; black points at angles of cell and a point on costa just beyond them; a subterminal line slightly angled at vein 4.

Hind wing pale ochreous tinged with pink, whitish from below cell to costa; the patches of androconia pale yellow.



Fig. 299.—*Ethosia ectrocta*, ♂. $\frac{1}{4}$.

Hab. HAITI, 1 ♂ type. *Exp.* 30 millim.

Genus **PARAMULONA**, nov.

Type, *P. albulata*.

Proboscis fully developed; palpi obliquely upturned, not reaching vertex of head; antennæ of male with moderate branches, the shaft somewhat dilated; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from middle of cell; 3 from angle; 4, 5 stalked; 6 from below upper angle; 7, 8, 9 stalked; 11 anastomosing with 12. Hind wing with vein 2 from towards angle of cell; 3, 4 stalked; 5 absent; 6, 7 from cell; 8 from middle of cell.

*823. *Paramulona albulata*.

Micra albulata, Herr.-Schäff. Corresp.-blatt. Regens. xx. p. 120 (1866).

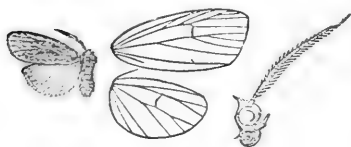


Fig. 300.—*Paramulona albulata*, ♂. $\frac{1}{4}$.

♂. Head and thorax brown and black; antennæ whitish, with some black specks on upperside of shaft and a purple-black patch beyond middle; abdomen pale. Fore wing pale brownish ochreous, strongly and rather irregularly suffused with purplish fuscous.

Hind wing pale brownish ochreous.

Hab. CUBA, type ♂ in Coll. Staudinger. *Exp.* 24 millim.

Genus **MULONA**.

Mulona, Wlk. xxxv. 1896 (1866) Type. *lapidaria*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from just beyond middle of cell; 3 from near angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from towards angle of cell; 3, 4 shortly stalked; 5 absent; 7 from below upper angle; 8 from middle of cell.

- | | |
|--|----------------------|
| A. Hind wing orange | <i>phelina</i> . |
| B. Hind wing whitish. | |
| a. Fore wing with postmedial black streak below costa... | <i>lapidaria</i> . |
| b. Fore wing without postmedial black streak | <i>nigripuncta</i> . |
| C. Hind wing fuscous | <i>grisea</i> . |

824. *Mulona phelina*.

Autoceras phelina, Druce, Biol. Centr.-Am., Het. i. p. 139, pl. 13. f. 13 (1885); Kirby, Cat. Het. p. 366.

♀. Head and thorax yellowish white; antennæ, shoulders, and bands on fore tibiæ and tarsi black; abdomen orange. Fore wing yellowish white; obliquely-placed subbasal black spots on costa and below the cell; three very obliquely-placed antemedial spots and two medial; a short streak at upper angle of cell, with short bar from costa above it; two spots on inner area below end of cell; a short postmedial bar from costa, a spot on vein 4, and spots above and below submedian fold; a subterminal spot on vein 4; cilia orange. Hind wing orange, with blackish spot on costa before apex.

Hab. PANAMA, Chiriqui (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 20 millim.

825. *Mulona lapidaria*.

Mulona lapidaria, Wlk. xxxv. 1893 (1836); Kirby, Cat. Het. p. 363.

♂. White, head, thorax, and abdomen slightly tinged with brown; palpi blackish at sides. Fore wing slightly irrorated with brown; an oblique black striga from costa near base and a subbasal point below the cell; a medial line bent inwards to costa, angled outwards on subcostal and medial nervures and on vein 1 and inwards below the cell, obsolescent on inner half; a black subcostal streak

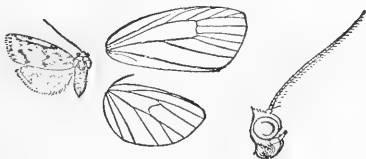


Fig. 301.—*Mulona lapidaria*, ♂. $\frac{1}{2}$.

from it bent up to costa before apex; a small postmedial spot on costa and minute streak at lower angle of cell; an ill-defined waved subterminal line angled outwards on vein 4; a terminal series of points. Hind wing white, with the terminal area tinged with brown.

Hab. HAITI (*Tweedie*), 2 ♂, type. *Exp.* 22 millim.

826. *Mulona nigripuncta*, n. sp. (Plate XXIX. fig. 6.)

♀. Head and thorax pale reddish brown; mesothorax with black points; abdomen whitish. Fore wing yellowish white, strongly irrorated with black; obliquely-placed black spots on costa and

below the cell; a medial black spot below subcostal nervure; a short orange streak in end of cell; two discoidal spots; a post-medial spot on costa; four rather irregularly placed subterminal spots; a terminal series of points. Hind wing white, tinged with brown towards termen.

Hab. PORTO RICO; COLOMBIA, Zell. Coll., 1 ♀ type. *Exp.* 18 millim.

827. *Mulona grisea*, n. sp. (Plate XXIX. fig. 30.)

Grey. Fore wing strongly irrorated with fuscous; a subbasal black spot on costa and antemedial spot below the cell; medial spots on costa and in and below the cell, the spot on costa nearer the base; a minute orange streak in end of cell; two black discoidal spots; an indistinct subterminal series of spots, the spot on vein 4 more prominent. Hind wing fuscous; the cilia whitish. Under-side uniform fuscous.

Hind wing with veins 3, 4 strongly stalked.

Hab. JAMAICA (*Bowry*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

Genus *CINCIA*.

	Type.
<i>Cincia</i> , Wlk. ii. 538 (1854)	<i>conspersa</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male minutely serrate, with bristles and cilia; tibiæ with the spurs moderate. Fore wing rather narrow, the costa arched, the apex rounded; vein 2 from middle of cell, curved at base; 3 from near angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from towards angle of cell; 3 more or less strongly stalked with 4, 5 which are coincident or 5 given off near margin; 6, 7 stalked; 8 from middle of cell.

A. Fore wing with ante- and postmedial patches of yellow suffusion.....	<i>pallida</i> .
B. Fore wing without yellow suffusion	<i>conspersa</i> .

828. *Cincia pallida*.

Cincia pallida, Butl. P. Z. S. 1878, p. 484; Kirby, Cat. Het. p. 366.

Autoceras mixta, Möschl. Abhandl. Senck. Ges. xiv. p. 31, f. 4 (1886).

♂. Head, thorax, and abdomen fuscous; vertex of head suffused with yellow; tarsi and ventral surface of abdomen whitish. Fore wing sparsely irrorated with black scales: the costa white, with six small black spots; some sulphur-yellow suffusion below base of costa, as an oblique irregular antemedial band from costa to submedian fold, and beyond end of cell; an antemedial black point below the cell and two discoidal points; traces of a postmedial series of points oblique from costa to vein 4, then incurved; a terminal series of points. Hind wing fuscous.

♀. Fore wing with the ground-colour whitish or slightly suffused with fuscous; the black irroration stronger; the series of spots much more prominent; two antemedial spots below the cell; a medial series oblique from costa to below cell, then incurved.

Hab. JAMAICA (*Sturridge, Bowry*), 1 ♂, 1 ♀ type. *Exp.*, ♂ .26, ♀ 28 millim. Type † *mixta* in Coll. Staudinger.

829. *Cincia conspersa*.

Cincia conspersa, Wlk. ii. 538 (1854); Kirby, Cat. Het. p. 366.

Autoceras sordida, Möschl. Abh. Senck. Ges. p. 32, f. 9 (1886); Kirby, Cat. Het. p. 368.

Head and thorax grey-white; palpi blackish; vertex of head, patagia, and metathorax with black points; fore legs spotted with black; abdomen fuscous above, whitish below. Fore wing grey-white, irrorated with black scales and often tinged with fuscous; small black spots at base of costa and below the cell; an oblique

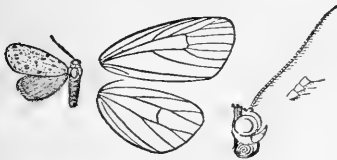


Fig. 302.—*Cincia conspersa*, ♂. †.

subbasal series of three spots; an antemedial series of four spots bent inwards to costa and outwards above inner margin; medial spots on costa and below the cell; a post-medial series of four spots bent outwards below the cell; two discoidal spots, with a spot on costa above them; subterminal

spots below costa and above veins 3 and 4; a terminal series. Hind wing fuscous, the cilia pale. Underside fuscous, fore wing with the costa whitish beyond middle, with three black points on it.

Hind wing with vein 3 shortly stalked with 4; 5 sometimes from near termen.

Hab. JAMAICA (*Gosse*), 3 ♀, type, Monteagle, 1200 ft. (*Cockerell*), 1 ♂. *Exp.* 20 millim. Type † *sordida* in Coll. Staudinger.

Genus SICCIA.

	Type.
<i>Siccia</i> , Wlk. ii. 539 (1854)	<i>caffra</i> .
<i>Æmene</i> , Wlk. ii. 541 (1854)	<i>taprobanis</i> .
<i>Melania</i> , Wllgrn. Wien. Ent. Mon. vii. p. 145 (1863)	<i>caffra</i> .
<i>Panassa</i> , Wlk. xxxii. 607 (1865)	<i>taprobanis</i> .
<i>Autoceras</i> , Feld. Reis. Nov. p. 2 (1874), non descr.	<i>taprobanis</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head; tibiae with the spurs long. Fore wing rather narrow; vein 2 from middle of cell; 3 from well before angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 from angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. (*Siccia*). Antennæ of male bipectinate, with rather long branches.

- A. Fore wing with the postmedial line very strongly angled inwards in submedian fold *caffra*.
- B. Fore wing with the postmedial line slightly angled inwards in submedian fold *punctipennis* (♀).

830. *Siccia caffra*.

Siccia caffra, Wlk. ii. 539 (1854); Kirby, Cat. Het. p. 368.

Lithosia nigropunctata, Wlgrn. Wien. Ent. Mon. iv. p. 46 (1860); Kirby, Cat. Het. p. 368.

Melania punctigera, Feld. Reis. Nov. pl. 106. ff. 34, 35 (1874).

Pale grey-brown; palpi, frons, and fore legs above blackish. Fore wing irrorated with a few black scales; subbasal and antemedial black spots on costa and below cell; medial spots on costa, in cell, and on inner margin; a discoidal spot; an indistinct post-

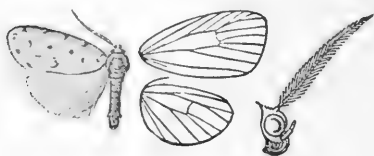


Fig. 303.—*Siccia caffra*, ♂. $\frac{3}{2}$.

medial line strongly bent outwards below costa and angled on veins 6 and 4, then incurved to below end of cell and excurved again; a diffused triangular wedge-shaped patch from costa to vein 5; terminal spots below apex, at middle, and above tornus with slight

points between them. Hind wing whitish, slightly tinged with brown towards costa and termen and with indistinct discoidal point; more uniformly tinged with brown in female.

Hab. NATAL, Estcourt (*Hutchinson*), 1 ♂, 3 ♀; CAPE COLONY, Knysna (*Trimen*), 3 ♂, 2 ♀, type. *Exp.* 20–24 millim.

831. *Siccia punctipennis*.

Lithosia punctipennis, Wlgrn. Wien. Ent. Mon. iv. p. 46 (1860); Kirby, Cat. Het. p. 368.

Autoceras nigropunctana, Saalm. Lep. Madag. i. p. 169, pl. 7. f. 103 (1884); Kirby, Cat. Het. p. 368.

♂. Pale grey-brown suffused with fuscous. Fore wing with subbasal spot on costa; the antemedial line arising from a spot on costa, strongly angled outwards to a spot below the cell, then retracted; a spot at middle of cell; the medial line arising from a spot on costa, angled outwards in cell, then oblique and minutely dentate; a discoidal spot; the postmedial line minutely dentate, bent outwards below costa and angled at veins 6 and 4, then retracted; a subterminal spot on costa with an obscure spot below it and two above inner margin; a terminal series of points. Hind wing fuscous.

Ab. 1. Yellower brown; fore wing with the antemedial and medial lines and subterminal spots obsolescent.—Teita.

Hab. MADAGASCAR, type † ♀ *nigropunctana* in Mus. Frankfort; BR. E. AFRICA, Teita (*F. J. Jackson*), 1 ♀; CAPE COLONY, type † ♂ in Mus. Stockholm. *Exp.* 18 millim.

SECT. II. (*Æmene*). Antennæ of male with very short branches ending in a bristle.

- A. Fore wing with dentate medial line..... *taprobanis*.
 B. Fore wing with the medial line reduced to spots *guttulosana*.

832. *Siccia taprobanis*.

Æmene taprobanis, Wlk. ii. 542 (1854); Moore, Lep. Ceyl. ii. p. 64, pl. 104. f. 2; Hmps. Moths Ind. ii. p. 92; Kirby, Cat. Het. p. 367.

Panassa cingalesa, Wlk. xxxii. 607 (1865).

Autoceras grammophora, Feld. Reis. Nov. pl. 106. f. 24 (1874).

Æmene sinuata, Moore, P. Z. S. 1878, p. 34, pl. 3. f. 11; Kirby, Cat. Het. p. 367.

Pale grey; palpi black; mesothorax, ends of patagia, tibiæ and tarsi with black spots; abdomen tinged with fuscous, the anal tuft grey. Fore wing with black spot at base of costa, with line from it to submedian fold, angled on median nervure; a triangular spot on costa before middle with a line from just below it to vein 1, strongly incurved below the cell; a spot at middle of cell; a medial line

angled outwards on subcostal and median nervures and inwards below the cell; a discoidal spot; the post-medial line minutely dentate, angled at veins 6 and 4, bent inwards below vein 2 and with some fuscous suffusion between it and the medial line on inner area; a dentate line be-

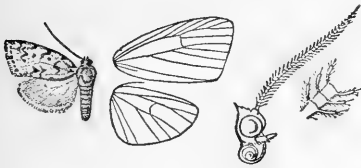


Fig. 304.—*Siccia taprobanis*, ♂. †.
 (From Moths Ind. vol. ii.)

yond it from costa to vein 2, more strongly angled at vein 6 and often indistinct; a terminal series of points. Hind wing fuscous, whitish towards base; an indistinct discoidal spot and sinuous postmedial line more prominent on underside; cilia whitish.

The form from Dharmasāla and Bombay is rather whiter than the Ceylon form.

Hab. N.W. HIMALAYAS, Dharmasāla (*Hocking*), 1 ♀; SIKHIM; ASSAM, Khâsis, Nâgas; BOMBAY (*Swinhoe*), 2 ♂, 1 ♀; CEYLON (*Templeton*), 1 ♂, 2 ♀, type and type *cingalesa*, Dickoya (*Green*), 1 ♂, 2 ♀; MALACCA. *Exp.*, ♂ 24, ♀ 30 millim. Type † *sinuata* in Coll. Staudinger.

833. *Siccia guttulosana*.

Tospitis guttulosana, Wlk. xxviii. 429 (1863); Moore, Lep. Ceyl. ii. p. 65, pl. 104. f. 3; Hmps. Moths Ind. ii. p. 92; Kirby, Cat. Het. p. 367.

Head and thorax brownish white; palpi and spots on mesothorax black; fore legs marked with black; abdomen fuscous, whitish below. Fore wing with subbasal black spots on costa and below cell; an ante-medial spot on costa, a point in cell, a spot below the cell, and point

on vein 1: a medial spot on costa, and points in cell and on inner margin; a discoidal spot; a postmedial series of points bent outwards below costa and angled on veins 6 and 4, then retracted to below end of cell, and with another series on its inner side with which it is connected by a streak in submedian fold; a spot on costa before apex, with a point below it and another point on inner margin; a terminal series of points. Hind wing whitish, with indistinct discoidal spot, the terminal half of wing tinged with fuscous.

Hab. N. INDIA, 1 ♂, 2 ♀ type; BOMBAY (*Swinhoe*), 4 ♂; NILGIRIS (*Hampson*), 2 ♀; COIMBATORE (*Walhouse*), 1 ♀; CEYLON (*Nietner*), 2 ♂, 2 ♀; JAVA, Zell. Coll., 1 ♀. *Exp.* 20-22 millim.

SECT. III. Antennæ of male ciliated.

- A. Fore wing without olive-fulvous bands.
- a. Fore wing with V- or Y- shaped black discoidal spot.
 - a¹. Fore wing with the ground-colour white *sagittifera*.
 - b¹. Fore wing with the ground-colour grey.
 - a². Fore wing with strong oblique antemedial black band from costa to below cell *v-nigra*.
 - b². Fore wing without antemedial black band.
 - a³. Fore wing with the area between the subbasal and antemedial lines paler *interspersa*.
 - b³. Fore wing with the antemedial area not paler.
 - a⁴. Fore wing with prominent Y-shaped black discoidal spot *tau*.
 - b⁴. Fore wing with small V-shaped fuscous discoidal spot.
 - a⁵. Fore wing with black point in cell beyond the antemedial line *minima*.
 - b⁵. Fore wing with oblique black striga in cell beyond the antemedial line *obscura*.
 - b. Fore wing with black spot or lunule at end of cell.
 - a¹. Fore wing with prominent short black streak in cell beyond the antemedial line *nilgirica*.
 - b¹. Fore wing without black streak in cell beyond the antemedial line.
 - a². Fore wing without postmedial line.
 - a³. Fore wing white, with large black spots at base, middle, and end of cell. *stigmatias*.
 - b³. Fore wing grey, with small spot in base of cell and three spots in terminal half. *seriata*.
 - b². Fore wing with postmedial line.
 - a³. Fore wing pale grey-brown *sordida*.
 - b³. Fore wing dark brown irrorated with grey.
 - a⁴. Fore wing with the postmedial line defined by white points *albisparsa*.
 - b⁴. Fore wing without white points on the postmedial line *tenebrosa*.
 - c³. Fore and hind wings black-brown without grey irroration *minuta*.
 - B. Fore wing with olive-fulvous bands. *fulvocincta*.

834. *Siccia sagittifera*.

Almene sagittifera, Moore, P. Z. S. 1888, p. 392; Butl. Ill. Het. B. M. vii. p. 33, pl. 122. f. 12; Hmps. Moths Ind. ii. p. 93; Kirby, Cat. Het. p. 368.

Head and thorax white; palpi and fore legs blackish; meso and

metathorax with black spots; abdomen fuscous grey. Fore wing white, with the costal edge black towards base; a subbasal line from

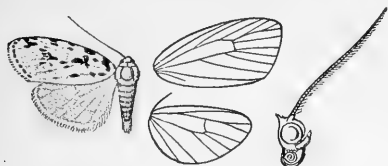


Fig. 305.—*Siccia sagittifera*, ♂. $\frac{3}{2}$.

costa to vein 1, with a slight streak beyond it in cell and a spot on inner area; an oblique antemedial series of spots connected with a prominent short streak in cell; a medial series of points angled in cell; a short streak in end of cell forming a small Y-shaped mark with the discoidal lunule; a postmedial series of points bent outwards below costa, angled on veins 6 and 4, then oblique; a spot on costa towards apex, with some dark marks below it; a terminal series of points. Hind wing slightly tinged with fuscous.

Hab. N.W. HIMALAYAS, Murree, 1 ♂, 1 ♀, Dalhousie, 1 ♀ (*Harford*), Kangra (*Hocking*), 3 ♂, 3 ♀, type; SIKHIM, 7000 feet (*Pilcher*), 1 ♂. *Exp.* 18–22 millim.

835. *Siccia v-nigra*, n. sp. (Plate XXIX. fig. 3.)

Head and thorax grey, tinged with fuscous and irrorated with black; palpi blackish; fore legs banded with black. Fore wing grey, tinged with fuscous brown and strongly irrorated with black; a subbasal black spot on costa; an antemedial oblique band from costa to median nervure, where it is angled and emits slight streaks, then reduced to a line, inwardly oblique and dentate on vein 1; a small spot on middle of costa; a prominent V-shaped discoidal mark; the postmedial line indistinct, minutely dentate, arising from a spot on costa, bent outwards below costa, angled on veins 6 and 4, then oblique; a spot on costa before apex, and traces of an irregular line across apical area; a terminal series of points. Hind wing fuscous brown, with traces of discoidal spot.

Hab. CHINA, Shanghai (*J. J. Walker*), 1 ♂, 1 ♀ type. *Exp.* 24 millim.

*836. *Siccia interspersa*. (Plate XXIX. fig. 27.)

Sorocostia interspersa, Lucas, Proc. Linn. Soc. N. S. W. (2) iv. p. 1076 (1890); Kirby, Cat. Het. p. 377.

♀. Head, thorax, and abdomen fuscous; basal joint of antennæ and a patch behind it yellow; anal tuft yellowish. Fore wing yellowish grey; the base irrorated with black, bounded by a dentate subbasal line; an antemedial slightly dentate black line, the area beyond it strongly irrorated with fuscous; a prominent discoidal black lunule expanding towards lower angle of cell; a strongly dentate postmedial line bent outwards from below costa to vein 2, and with slight fuscous patches beyond it below costa, at middle, and above

inner margin; three black points on costa towards apex, and a terminal series. Hind wing pale fuscous, with a slight dark terminal line; cilia pale.

Hab. QUEENSLAND, Brisbane, 1 ♀ in Coll. Meyrick. *Exp.* 20 millim.

837. *Siccia tau*. (Plate XXIX. fig. 7.)

Ænone tau, Heyl. C.R. Soc. Ent. Belge, xxxv. p. 414 (1891); Kirby, Cat. Het. p. 916.

Grey, tinged with pale brown; abdomen tinged with fuscous. Fore wing with the costal edge black towards base; a short subbasal striga from costa and some dark scales below the cell; an indistinct antemedial line arising from a dark spot on costa, oblique to just below the cell where it is sharply angled and retracted, then again oblique; a Y-shaped black spot in end of cell and on discocellulars; the postmedial line diffused, bent outwards below the costa, angled outwards on vein 6 and inwards in submedian fold, then bent outwards to inner margin; a diffused subterminal line angled inwards on veins 6 and 3 and oblique towards costa. Hind wing whitish, tinged with pale fuscous brown.

Hab. MADRAS (*E. F. Watson*), 1 ♀; CEYLON (*Nietner*), 1 ♂; JAVA, type ♀ in Coll. Heylaerts. *Exp.*, ♂ 18, ♀ 20 millim.

838. *Siccia minima*, n. sp. (Plate XXIX. fig. 31.)

Grey, irrorated with brown; palpi and fore legs tinged with fuscous. Fore wing with subbasal fuscous spots on costa and below the cell; indistinct antemedial spots on costa and below cell; a more prominent point in middle of cell; an indistinct waved medial line angled outwards below costa and inwards below the cell; a small discoidal V-shaped spot; a very ill-defined dentate postmedial line, oblique from costa to vein 4 where it is angled, and with another indistinct dentate line beyond it across apical area; a terminal series of points. Hind wing pale fuscous.

Hab. CEYLON, Puttalam, Hambantota (*Pole*), 1 ♂, 1 ♀ type. *Exp.* 12 millim.

*839. *Siccia obscura*.

Eugoa obscura, Leech, P. Z. S. 1888, p. 604, pl. 30. f. 15; Kirby, Cat. Het. p. 379.

♀. Head and thorax white, irrorated with brown; palpi blackish; legs and abdomen tinged with brown. Fore wing grey-white, irrorated with brown; a minutely waved subbasal brown line from costa to submedian fold; a waved antemedial line bent inwards to costa, with an oblique black striga beyond it in cell; some medial brown suffusion above and below median nervure; an indistinct dentate medial line strongly angled outwards at middle; a small V-shaped black discoidal spot; a minutely dentate postmedial line strongly bent outwards below costa and angled at veins 6 and 4,

then very oblique; an indistinct irregularly sinuous subterminal line with diffused spots on it on and below costa; a terminal series of points. Hind wing brown.

Hab. JAPAN, 1 ♀ type † in Coll. Leech. *Exp.* 20 millim.

840. *Siccia nilgirica*.

Æmene nilgirica, Hmps. Ill. Het. B. M. viii. p. 51, pl. 140. f. 1 (1891); id. Moths Ind. ii. p. 92; Kirby, Cat. Het. p. 368.

Head and thorax grey, irrorated with black; palpi and fore legs blackish; abdomen fuscous, the anal tuft grey. Fore wing grey, irrorated with black; a subbasal black spot on costa; an oblique antemedial series of four points with a spot beyond them in cell; a medial point on costa; a discoidal point; a postmedial series of points, bent outwards below costa, somewhat angled at veins 6 and 4, then oblique, and with irregular marks beyond it on costal area and at middle; a terminal series of points. Hind wing pale fuscous.

Hab. NILGIRI PLATEAU, 7000 feet (*Hampson*), 1 ♂, 1 ♀ type; JAVA, Arjuno (*Doherty*), 1 ♂. *Exp.* 20 millim.

Subsp. 1. *cinereicolor*, Hmps. Ill. Het. B. M. viii. p. 51, pl. 140. f. 8 (1891); Kirby, Cat. Het. p. 368.

Head, thorax, and fore wing much more strongly irrorated with dark brown; the last with the markings stronger; the antemedial punctiform line somewhat angled on median nervure.

Hab. CHINA, Shanghai, 1 ♂; NILGIRIS, 3000 feet (*Hampson*), 2 ♂, type; CEYLON, Puttalam, Hambantota (*Pole*), 2 ♀.

841. *Siccia stigmatias*, n. sp. (Plate XXIX. fig. 9.)

Head and thorax white; palpi and antennæ black; legs fuscous and brownish; abdomen fuscous black, the anal tuft yellowish white. Fore wing white; the costal edge black towards base; a small subbasal spot on costa, and large spot in and below cell; an antemedial spot on costa, a large round spot in cell, and a point below the submedian fold; a point at middle of costa; a round discoidal spot with small triangular spot on costa above it; a subterminal spot on costa, small spot above vein 5, and triangular spot at tornus; a terminal series of striæ and spots on cilia at apex and middle. Hind wing fuscous, with indistinct discoidal spot.

Hab. SANGIR (*Doherty*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

*842. *Siccia seriata*, n. sp. (Plate XXIX. fig. 10.)

♀. Head and thorax grey-white; tegulæ, patagia, and meta-thorax with black points; abdomen fuscous, with ochreous anal tuft. Fore wing grey-white, with five black spots on costa; a subbasal black point; ante- and postmedial black points below costa; a series of five spots between middle of cell and termen, the spots at middle and end of cell larger; a series of four spots in submedian

fold, the last with obliquely placed spot above it; a terminal series of points. Hind wing fuscous, with very obscure discoidal spot.

Hab. ASSAM, Naga Hills, 6000 feet (*Doherty*). Type † in Coll. Elwes. *Exp.* 32 millim.

843. *Siccia sordida*.

Æmene sordida, Butl. Trans. Ent. Soc. 1877, p. 372; Moore, Lep. Ceyl. ii. p. 65, pl. 104. f. 4; Hmps. Moths' Ind. ii. p. 92; Kirby, Cat. Het. p. 367.

Pale grey-brown: palpi blackish; metathorax, ends of patagia, tibiae and tarsi spotted with black; abdomen with the anal tuft and ventral surface yellowish white. Fore wing with black point at base and subbasal points below costa and cell; an antemedial series of points from below costa to submedian fold: a point in middle of cell; a medial dentate line arising from a spot on costa, bent outwards below costa and angled inwards in submedian fold; a discoidal lunule; a minutely dentate postmedial line bent outwards below costa, angled at veins 6 and 4, then bent inwards below the cell and outwards again to inner margin; an interrupted line beyond it, excurved below costa and at middle, then incurved; a terminal series of points and points on the cilia at apex and middle. Hind wing white, tinged with brown towards apex; in female pale fuscous.

Hab. CHINA, Shanghai (*J. J. Walker*), 1 ♂, Ngan-kin, 1 ♂; PUNJAB, Mynpuri, 1 ♂; COIMBATORE (*Walhouse*), 1 ♂ type; CEYLON (*Green*), 3 ♂, 1 ♀. *Exp.*, ♂ 18, ♀ 22 millim.

Subsp. 1. Head, thorax, and fore wing whiter.

Hab. SINGAPORE (*Ridley*), 1 ♂; BALI (*Doherty*), 2 ♂.

Subsp. 2. *subcinerea*, Moore, P. Z. S. 1878, p. 34; Kirby, Cat. Het. p. 367.

Æmene modesta, Moore, P. Z. S. 1878, p. 34; Kirby, Cat. Het. p. 367.

Hind wing of male fuscous, the cilia whitish.

Hab. FORMOSA (*Swinhoe*), 1 ♂ type *modesta*; KANGRA (*Hocking*), 2 ♂, 2 ♀ type.

Subsp. 3. *quinquefascia*, Hmps. Ill. Het. B. M. viii. p. 52, pl. 140. f. 15 (1891); Kirby, Cat. Het. p. 368.

Fore wing largely suffused with black.

Hab. NILGIRIS (*Hampson*), 1 ♂, 1 ♀ type.

844. *Siccia albisparsa*. (Plate XXIX. fig. 11.)

Æmene albisparsa, Hmps. J. Bomb. N. II. Soc. 1897, p. 439.

♂. Head and thorax dark brown irrorated with grey; abdomen dark grey, the anal tuft and ventral surface yellowish. Fore wing dark brown irrorated with white, the basal and medial areas most thickly irrorated; a black point in middle of cell, and a white point on inner side of the black discoidal lunule; the postmedial line bent outwards below costa, angled at veins 6 and 4, then incurved and

defined on outer side by white points; traces of a sinuous subterminal line; a pale line at base of cilia. Hind wing pale fuscous.

Hab. ASSAM, Khásis, 1 ♂ type. *Exp.* 24 millim.

845. *Siccia tenebrosa*. (Plate XXIX. fig. 13.)

Emene tenebrosa, Moore, P. Z. S. 1878, p. 34; Hmps. Moths Ind. ii. p. 93; Kirby, Cat. Het. p. 367.

Head and thorax dark brown, irrorated with grey; abdomen fuscous grey, the anal tuft and ventral surface yellowish white. Fore wing dark brown, strongly irrorated with grey; indistinct minutely waved antemedial and medial curved lines; a spot in middle of cell and discoidal lunule; the postmedial line bent outwards below costa and angled at veins 6 and 4, then incurved; an obscure subterminal line, most prominent towards costa; a terminal series of points. Hind wing whitish in male, pale fuscous in female.

Hab. BOMBAY, 5 ♀, type, Mhow, 1 ♂ (*Swinhoe*), Poona (*Nurse*), 1 ♂. *Exp.*, ♂ 18, ♀ 20 millim.

846. *Siccia minuta*. (Plate XXIX. fig. 29.)

Emene minuta, Butl. Trans. Ent. Soc. 1881, p. 595; Kirby, Cat. Het. p. 367.

♂. Fuscous black; abdomen whitish below. Fore wing with paler medial diffused band; an indistinct dark discoidal spot; traces of a postmedial line strongly excurved beyond the cell and of a curved subterminal line.

Hab. JAPAN, Yokohama (*Pryer*), 1 ♂ type. *Exp.* 16 millim.

847. *Siccia fulvocincta*, n. sp. (Plate XXIX. fig. 13.)

♀. Grey; head and thorax tinged with olive-fulvous; tibiae and tarsi blackish with white bands. Fore wing strongly irrorated with fuscous; some olive-fulvous marks at base; subbasal, antemedial, medial, and postmedial olive-fulvous minutely dentate bands defined on each side by blackish lines, angled outwards below costa and at middle; a point at middle of cell and discoidal lunule; traces of a maculate subterminal line; cilia olive-fulvous and fuscous chequered with white. Hind wing fuscous, the cilia pale.

Hab. NILGIRIS, 1 ♀; MADURA (*A. G. Cardew*), 1 ♀ type. *Exp.* 36 millim.

Genus **ADOXOSIA**, nov.

Type, *A. excisa*.

Proboscis fully developed; palpi porrect, extending about the length of head; frons with sharp tuft; antennae of male minutely ciliated; tibiae with the spurs moderate. Fore wing long and narrow, the costa arched, the termen excised below apex; vein 2 from towards angle of cell; 3 from well before angle; 4, 5 separate; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from before angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

848. *Adoxosia excisa*, n. sp.

♂. Yellowish white irrorated with brown. Fore wing with

Fig. 306.—*Adoxosia excisa*, ♂. †.

very obscure pale band just beyond middle defined by indistinct waved dark lines; traces of a sinuous subterminal line; cilia fuscous, yellow below apex and above tornus. Hind wing yellowish white, the terminal area fuscous, very broadly so on costa, narrowing to tornus.

Hab. BRAZIL, Rio Janeiro, 1 ♂ type. *Exp.* 20 millim.

Genus **EUTELESIA**, nov.

Type, *E. vulgaris*.

Proboscis fully developed; palpi oblique, reaching beyond the frons; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs long. Fore wing rather broad, the apex somewhat produced and the termen oblique; vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6 from below upper angle; 7, 8 stalked, 9 absent; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from middle of discocellulars; 6, 7 stalked; 8 from middle of cell.

849. *Eutelesia vulgaris*.

Nola vulgaris. Druce, Biol. Centr.-Am., Het. i. p. 141, pl. 13. f. 22 (1885); Kirby, Cat. Het. p. 374.

Pale ochreous brown; palpi, branches of antennæ, and fore legs

Fig. 307.—*Eutelesia vulgaris*, ♂. †.

blackish. Fore wing irrorated with dark brown scales; the costal edge blackish towards base; a very ill-defined irregular antemedial brown line; a blackish discoidal spot and spots on costa beyond middle and towards apex; an obscure double subterminal series of points; a terminal series of

black striæ and spots on cilia at apex and vein 5. Hind wing pale yellowish.

Hab. COSTA RICA, Irazu, 1 ♂, R. Sudio, 1 ♀ (*Rogers*), type, Godman-Salvin Coll. *Exp.* 20 millim.

Genus **CLEMENSIA**.

	Type.
<i>Clemensia</i> , Pack. Proc. Ent. Soc. Phil. iii. p. 100 (1864)	<i>albata</i> .
<i>Uxia</i> , Wlk. xxxv. 1897 (1866)	<i>albata</i> .
<i>Repa</i> , Wlk. xxxv. 1898 (1866)	<i>albata</i> .

Proboscis fully developed; palpi upturned, hardly reaching vertex of head; tibiæ with the spurs long; anal segment of abdomen and claspers tufted with hair. Fore wing rather narrow; vein 2 from just beyond middle of cell; 3 from well before angle; 5 from or from above angle, or very shortly stalked

with 4; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from near angle; 5 from above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Antennæ of male with extremely long branches curled at tips.

850. *Clemensia plumicornis*.

Coracia plumicornis, Butl. Cist. Ent. iii. p. 4 (1882).

♂. Head and thorax white slightly tinged with brown; abdomen white. Fore wing silvery grey; some white at base; a broad antemedial white band with sinuous edges; the terminal area slightly irrorated with white; a dark discoidal point; the post-medial line slightly defined by white on outer side, bent outwards below costa and



Fig. 308.—*Clemensia plumicornis*, ♂. $\frac{3}{2}$.

angled at veins 6 and 4; whitish patches on termen at apex and below middle. Hind wing white, slightly tinged with brown towards apex; a fine brown terminal line.

Hab. MADAGASCAR, Betsileo (*Cowan*), 1 ♂ type. *Exp.* 20 millim.

SECT. II. Antennæ of male with short branches.

851. *Clemensia marmorata*.

Calligenia marmorata, Schaus, J. N. Y. Ent. Soc. iv. p. 151 (1896).

White; palpi, antennæ, and a band behind tegulæ brownish. Fore wing with the base of costa black; a fulvous subbasal band from costa to below cell; an antemedial brown point below costa; a large lunulate black patch suffused with blue-grey scales from median nervure to above inner margin; an oblique brown striga from costa just before middle; a fulvous patch on middle of inner margin edged with brown, with a brown streak on vein 1 and



Fig. 309.—*Clemensia marmorata*, ♂. $\frac{3}{2}$.

a broad dark leaden-coloured streak on its upper edge; a somewhat quadrate fulvous patch on costa beyond middle, with two dark streaks crossing it and a fulvous and black spot below its outer extremity; an irregularly waved blackish postmedial line with a grey-brown band on its outer side; fulvous spots on termen and cilia at middle. Hind wing with brownish terminal band, most prominent towards apex.

Hab. BRAZIL, Castro Paraña (*Jones*), 1 ♂. *Exp.* 20 millim. Type† in Coll. Schaus.

SECT. III. Antennæ of male with bristles and cilia.

- A. Fore wing of male with a fold at base of costa fringed with hair and a tuft of hair from below middle of vein 1; hind wing with the costa somewhat lobed at middle.
 a. Hind wing of male with slight fold beyond the cell, with slight fringes of hair on each side of it.

852. *Clemensia ophrydina*.

Nola ophrydina, Druce, Biol. Centr.-Am., Het. i. p. 140, pl. 13. f. 16 (1885);

Kirby, Cat. Het. p. 366.

Clemensia picosa, Dognin, Ann. Soc. Ent. Belge, xli. p. 25 (1898).

♂. Head and thorax white; palpi black; antennæ brownish; mesothorax with black spots; abdomen black-brown; legs brown. Fore wing white; a black spot at base of costa; short streaks below

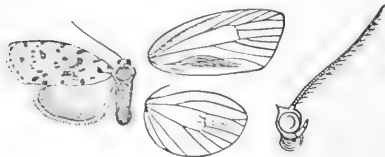


Fig. 310.—*Clemensia ophrydina*, ♂. $\frac{3}{2}$.

base of cell and on inner margin; a small subbasal spot on costa and obliquely placed points below the cell and above inner margin; an antemedial short oblique bar from costa, more erect bar in cell, and quadrate spot below the cell; a point in middle of cell, points at

origin of veins 2 and 11, and a point above them on costa; a discoidal lunulate spot; a postmedial series of points angled at veins 6 and 4 and angled inwards in submedian fold; subterminal spots on costa, and above vein 5 and inner margin; a terminal series of points. Hind wing white tinged with fuscous, especially on terminal half.

♀. Abdomen grey.

Hab. MEXICO, Vera Cruz (*Rümeli*), 1 ♂ type; GUATEMALA, S. Geronimo (*Champion*), 1 ♀, Godman-Salvin Coll.; ECUADOR, type † *picosa* in Coll. Dognin. Exp. 24 millim.

- b. Hind wing of male without fold and fringes beyond the cell.

853. *Clemensia albata*.

Clemensia albata, Pack. Proc. Ent. Soc. Phil. iii. p. 101 (1864); Stretch,

Zyg. & Bomb. N. Am. i. p. 51, pl. 2. f. 13; Kirby, Cat. Het. p. 366.

Uxia albida, Wlk. xxxv. 1897 (1866).

Repa cana, Wlk. xxxv. 1898 (1866).

Clemensia unabrata, Pack. Rep. Peabody Acad. iv. p. 85 (1872); Stretch,

Zyg. & Bomb. N. Am. p. 167, pl. 7. f. 18; Kirby, Cat. Het. p. 366.

Clemensia irrorata, H. Edw. Proc. Calif. Acad. v. p. 185 (1874); Kirby, Cat. Het. p. 366.

Nola patella, Druce, Biol. Centr.-Am., Het. i. p. 139, pl. 13. f. 14 (1885); Kirby, Cat. Het. p. 372.

Nola philodina, Druce, Biol. Centr.-Am., Het. i. p. 139, pl. 13. f. 15 (1885); Kirby, Cat. Het. p. 375.

White, strongly irrorated with fuscous; palpi black at sides; fore legs black above; abdomen with black bands. Fore wing with

a series of small black spots on costa; two antemedial lines from subcostal nervure to submedian fold, with a point below them on vein 1; an indistinct medial punctiform line oblique towards costa and incurved below the cell; a discoidal black lunule; a postmedial series of points, oblique towards costa and incurved below vein 3; a more



Fig. 311.—*Clemensia albata*, ♂. 1.

prominent spot on costa before apex, often with a spot below it; a terminal series of black striae. Hind wing white tinged with brown and with traces of discoidal spot, postmedial line and terminal spots below middle and towards tornus.

Ab. 1. *umbrata*. Fore wing with distinct broad medial brown shade.

Hab. U. S. A., New York, Washington, Grote and Zell Colls., types *albida* and *cana*; MEXICO, Jalapa (*Hoega, Trujillo*), type *patella*, Cordova (*Rümeli*), Durango (*Forrer*), Guerrero (*H. H. Smith*); COSTA RICA, Irazu, R. Sució (*Rogers*), type *philodina*, Godman-Salvin Coll. Exp. 22–28 millim.

Larva. Pack. J. N. Y. Ent. Soc. iii. p. 176.

Stage I. Head dusky amber, the lower part paler, the vertex convex on each side, the two epicranial plates orbicular; body cylindrical, whitish green; the hairs arising from minute one-haired tubercles, finely spinulate and of nearly even length.

Eggs oval, covered with white hairs, laid in groups of five or six.

B. Fore wing of male with curved fold in middle of submedian interspace fringed with hair on underside, and some downturned hair in end of cell.

854. *Clemensia roseata*, n. sp.

♂. Head, thorax, and abdomen ochreous white, the thorax with pinkish tinge above. Fore wing yellow suffused with pink; the costal area brownish to beyond middle; the cell brownish to origin of vein 2 except a spot above middle of median nervure; an antemedial brown line from cell to inner margin; a line from median nervure along vein 2 to its middle, where it is angled, thence to inner margin; a curved subterminal band emitting



Fig. 312.—*Clemensia roseata*, ♂. 1.

short streaks to termen at apex, middle, and tornus and leaving patches of yellow on termen. Hind wing pale yellow.

Hab. BRAZIL, Petropolis (*Doer*), 1 ♂ type. Exp. 26 millim.

C. Fore wing of male without fold at base of costa, or tufts of hair.

a. Fore wing with the termen very slightly angled at middle.

a¹. Fore wing with the ground-colour white ... *erminea*.

b¹. Fore wing with the ground-colour brown or grey.

a². Hind wing fuscous above, the underside with discoidal point and curved postmedial line.

a³. Fore wing grey ... *cernitis*.

b³. Fore wing reddish brown ... *centralis*.

b². Hind wing whitish.

a³. Hind wing with terminal fuscous band above and below. *Exp.* 14 millim. ... *quinqueferana*.

b³. Hind wing without fuscous terminal band. *Exp.* 24 millim ... *rossata*.

855. *Clemensia erminea*. (Plate XXIX. fig. 14.)

Calligenia erminea, Schaus, J. N. Y. Ent. Soc. iv. p. 151 (1896).

White; palpi and fore legs blackish. Fore wing with subbasal, medial, postmedial, and subterminal small black spots on costa some black scales representing a medial line; a discoidal point; a curved black band irrorated with white scales from middle of termen to tornus and with diffused black scales between its upper extremity and the postmedial spot on costa; a terminal series of brown and black points; cilia black at apex and middle. Hind wing with broad terminal black band and the cilia black.

Hab. BRAZIL, São Paulo, Castro Paraña (*Jones*), 1 ♂. *Exp.* 14 millim. Type † in Coll. Schaus.

856. *Clemensia cernitis*.

Nola cernitis, Druce, Biol. Centr.-Am., Het. ii. p. 404, pl. 78. f. 19 (1897).

♀. Grey. Fore wing with the costal edge black towards base; an indistinct subbasal line angled in cell and followed by a diffused dark shade; the antemedial line minutely dentate, angled on median nervure, then oblique; a crenulate medial line with a triangular dark patch on costa between it and the postmedial series of points, which are bent outwards beyond the two discoidal points and angled at veins 6 and 4; a diffused subterminal line angled at veins 6 and 4, then incurved, double and minutely dentate; a terminal series of striæ and spots on the cilia at apex and vein 4. Hind wing fuscous brown; the underside whitish, with discoidal point and curved postmedial line.

Hab. MEXICO, Guerrero (*H. H. Smith*), 2 ♀, type, Godman-Salvin Coll. *Exp.* 20 millim.

857. *Clemensia centralis*, n. sp. (Plate XXIX. fig. 18.)

♂. Brown; vertex of head, tegulæ, and anal tuft whitish. Fore wing irrorated with black scales; a fine black antemedial line dentate below costa, on median nervure, and vein 1, and defined by whitish on inner side; a discoidal black point; a fine postmedial line defined by whitish on outer side, bent outwards below costa,

then strongly dentate, with black points on the veins and with three fine black streaks beyond it above vein 5; a punctiform subterminal white line bent inwards to costa; cilia yellowish, dark at apex, middle, and tornus. Hind wing fuscous brown; the underside whitish, with discoidal spot and obscure curved post-medial and subterminal lines.

Hab. GUATEMALA, Las Mercedes (*Champion*), 1 ♂ type, Godman-Salvin Coll.; PANAMA, La Chorrera (*Dolby-Tylor*), 1 ♂. *Exp.* 16 millim.

858. *Clemensia quinqueferana*.

Tospitis quinqueferana, Wlk. xxviii. 433 (1863); Kirby, Cat. Het. p. 365.

Reddish brown; abdomen greyish, the anal tuft ochreous. Fore wing with oblique dark striga from costa and slight spots in and below cell, forming traces of the antemedial line; a dark spot on costa, a discoidal point and slight points on inner area forming traces of the postmedial line; cilia pale, dark at apex and middle. Hind wing whitish, with diffused fuscous-brown terminal band.



Fig. 313.

Clemensia quinqueferana, ♂. $\frac{3}{4}$.

Hab. MEXICO, Tabasco (*H. H. Smith*), 1 ♀, Godman-Salvin Coll.; PANAMA, La Chorrera (*Dolby-Tylor*), 1 ♂, Chiriqui; BRAZIL, Ega (*Bates*), 1 ♂ type; PERU, Callanga. *Exp.* 14 millim.

859. *Clemensia russata*, n. sp. (Plate XXIX. fig. 21.)

Nola vulgaris, Druce, Biol. Centr.-Am., Het. i. p. 141, part.

♂. Red-brown; palpi blackish at sides. Fore wing with the costa black towards base; an indistinct antemedial line arising from a black point on costa, angled outwards on median nervure and inwards in submedian fold; a medial line slightly angled at median nervure, then incurved; two minute discoidal points; a postmedial series of points angled at veins 6 and 4, then incurved; a diffused subterminal line interrupted below costa and incurved below vein 4; a fine terminal line and line through the cilia.

Hab. COSTA RICA, Irazu (*Rogers*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 24 millim.

b. Fore wing with the termen evenly curved.

a¹. Fore wing with antemedial line angled in cell *parapatella*.

b¹. Fore wing with antemedial series of spots..... *panthera*.

* 860. *Clemensia parapatella*. (Plate XXIX. fig. 19.)

Æmene parapatella, Dognin, Ann. Soc. Ent. Belge, xliii. p. 133 (1899).

♂. Head, thorax, and abdomen grey, brown and fuscous; palpi
2 D 2

blackish. Fore wing grey suffused with brown; the costa black towards base; a curved subbasal line angled inwards in cell; three dark points on subcostal nervure and one on median nervure before middle; the antemedial line strongly bent outwards from below costa to vein 2, then incurved and dentate on vein 1, a dark patch beyond it in cell extending to the rather indistinct dentate medial line; a bar-shaped black discoidal spot; the postmedial line rather indistinct, oblique and punctiform from costa to vein 6, then dentate, and below vein 4 inwardly oblique; a dark patch on costa before apex and another inside termen below apex; a terminal series of points. Hind wing whitish slightly tinged with brown, especially towards termen; a slight discoidal point.

Hab. ECUADOR, Loja, type \dagger ♂ in Coll. Dognin. *Exp.* 22 millim.

861. *Clemensia panthera*.

Nola panthera, Schaus, J. N. Y. Ent. Soc. iv. p. 152 (1896).

♂. White; palpi and fore legs in front blackish; meso- and metathorax spotted with black; abdomen and legs tinged with ochreous. Fore wing with the costal edge black towards base;

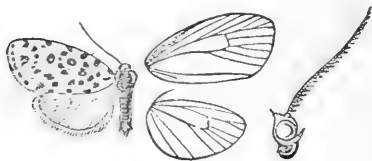


Fig. 314.—*Clemensia panthera*, ♂. $\frac{3}{4}$.

a spot at base of costa; a curved subbasal series of three spots and a few scales on inner area; an antemedial series of five spots slightly angled on median nervure, then oblique, and with two spots beyond it; a larger spot in middle of cell; a medial series of seven spots slightly excurved in cell; a large discoidal spot; a postmedial series of ten spots angled on veins 6 and 4, then very oblique; subterminal spots on costa, vein 5, and above inner margin; a terminal series and spot on middle of cilia. Hind wing slightly tinged with fuscous on terminal area from below costa to submedian fold; an indistinct discoidal spot, more prominent on underside.

Hab. BRAZIL, Theresopolis, 1 ♂, São Paulo (*Jones*), type \dagger in Coll. Schaus. *Exp.* 22 millim.

Genus *ÆOLOSIA*, nov.

Type, *A. multipunctata*.

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching above vertex of head, the 3rd somewhat porrect; antennæ of male ciliated; tibiae with the spurs moderate. Fore wing rather narrow; vein 2 from middle of cell; 3 from well before angle; 5 from above angle; 6 from below upper angle; 7 shortly stalked with 8, 9, 10; 11 free, oblique. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 stalked; 8 from before middle of cell.

862. *Æolosia multipunctata*, n. sp.

♂. White; tegulæ, patagia, and metathorax with black spots; abdomen with dorsal and lateral black bands. Fore wing with very numerous black spots in the interspaces, forming about nine series incurved to costa and oblique towards inner margin; a terminal series. Hind wing with discoidal spot; an indistinct post-medial curved series of

Fig. 315.—*Æolosia multipunctata*, ♂. $\frac{3}{2}$.

spots in the interspaces; the interspaces of terminal area suffused with fuscous; a terminal series of spots.

Hab. BURMA, Hsipaw (*De Nicéville*), 1 ♂ type. *Exp.* 22 millim.

Genus PAREUGOA, nov.

Type, *P. multistrigata*.

Proboscis fully developed; palpi upturned, slender, reaching vertex of head; frons with conical prominence; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from middle of cell; 3 from before angle; 4, 5 shortly stalked; 6 from below upper angle; 7, 8 stalked; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 from just above angle; 6, 7, stalked; 8 from middle of cell.

863. *Pareugoa multistrigata*.

Eugoa multistrigata, Hmps. J. Bomb. N. H. Soc. xi. p. 439 (1897).

Ochreous white; palpi at sides and frontal tuft blackish; vertex of head, tegulæ, patagia, meso- and metathorax with black spots; abdomen with fuscous dorsal bands.

Fig. 316.—*Pareugoa multistrigata*, ♂. $\frac{3}{2}$.

Fore wing with the costal edge black towards base; black points at base of costa and cell; subbasal and antemedial series of black spots, the spot in submedian fold displaced outwards; a spot on middle of median nervure; a medial series of black streaks in the interspaces, the one above the cell nearer the base; a discoidal point and three streaks in a curved series above upper angle of cell; a postmedial series of small spots oblique towards costa and below vein 4; a subterminal series of short streaks incurved to costa; the termen with a small spot at apex, two conjoined at middle and one at tornus. Hind wing pale fuscous.

Hab. ASSAM, Khâsis, 1 ♂, 1 ♀ type. *Exp.* 24 millim.

Genus **HYPOSICCIA**, nov.Type, *H. amnæa*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing with vein 2 from middle of cell; 3 from before angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards angle of cell; 3, 4 from angle; 5 from above angle; 6, 7 stalked; 8 from middle of cell.

A. Fore wing with the ground-colour white.

a. Fore wing with double postmedial line filled in by black suffusion.....

amnæa.

b. Fore wing with postmedial series of points

punctigera.

B. Fore wing with the ground-colour grey-brown

mesozonata.864. **Hyposiccia amnæa**.

Æmene amnæa, Swinh. A. M. N. H. (6) xiv. p. 437 (1894); id. Trans. Ent. Soc. 1895, p. 22, pl. i. f. 13; Hmps. Moths Ind. iv. p. 496.

♂. Head and thorax white; palpi, antennæ, and spots on tegulæ, patagia, and metathorax blackish; legs banded with brown; abdomen

fuscous, the anal tuft and ventral surface brownish white. Fore wing white; subbasal black spots on costa and below the cell; a waved antemedial line expanding at costa and interrupted from submedian nervure to above vein 1; a black spot in middle of cell and a large

Fig. 317.—*Hyposiccia amnæa*, ♂. †.

discoidal lunule; two postmedial lines angled outwards at veins 6 and 4, then incurved, the space between them filled in with black suffusion except from vein 3 to submedian fold; a subterminal line composed of an interrupted series of lunules, with a larger spot at costa, a terminal series of points, and spots on the cilia at apex and middle. Hind wing fuscous, with traces of discoidal spot and postmedial line.

Hab. ASSAM, Khâsis, 1 ♂ type. *Exp.* 24 millim.

*865. **Hyposiccia punctigera**. (Plate XXIX. fig. 23.)

Æmene punctigera, Leech, Trans. Ent. Soc. 1899, p. 188.

♂. White; palpi and fore and mid legs blackish. Fore wing with the costal edge black towards base; a black point at base; subbasal black points below costa and cell; an antemedial series of three black points; a black point at middle of cell and a large discoidal spot; a point on middle of costa; a postmedial series of points bent outwards below costa and angled outwards at veins 6 and 4, then bent inwards to below middle of cell and with a larger spot above inner margin; a subterminal series of points interrupted at middle and with a larger spot on costa, below which it is angled

outwards; a terminal series of points. Hind wing slightly tinged with brown and with traces of a discoidal lunule more distinct on underside. Underside of fore wing suffused with fuscous.

Hab. C. & W. CHINA, Washan, type † in Coll. Leech, Pu-tsu-fong, Chia-ting-fu, Ichang. *Exp.* 28 millim.

866. *Hyposiccia mesozonata*. (Plate XXIX. fig. 22.)

Æmene mesozonata, Humpn. J. Bomb. N. H. Soc. xi. p. 438 (1898).

Head and thorax grey tinged with olive-brown; palpi blackish; fore and mid legs banded with black; abdomen fuscous, the anal tuft grey. Fore wing grey; the basal area suffused with olive-brown, with darker spots at base of costa and below the cell; an antemedial waved line angled outwards in cell, inwards just below it and bent outwards to inner margin; a black spot in middle of cell and lunule on discocellulars; medial and postmedial waved lines with an olive-brown band between them, angled at veins 6 and 4, then oblique, and joining the antemedial line at inner margin; an irregularly waved subterminal line with some brown suffusion beyond it; a terminal series of points with larger spots at apex, middle, and above tornus. Hind wing fuscous, darker in female; the cilia greyish.

Hab. ASSAM, Khâsis, 1 ♂, 1 ♀ type. *Exp.*, ♂ 18, ♀ 20 millim.

Genus *PARASICCIA*, nov.

Type, P. maculifascia.

Proboscis fully developed; palpi upturned, reaching vertex of head; tibiae with the spurs long. Fore wing with vein 2 from beyond middle of cell; 3 from near angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 from angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. Antennæ of male bipectinate, with moderate branches.

867. *Parasiccia punctatissima*.

Æmene punctatissima, Pouj. Bul. Soc. Ent. Fr. (6) vi. p. clix (1886); Kirby, Cat. Het. p. 367.

♂. Head and thorax pale brownish grey; palpi black; legs tinged with ochreous and banded with fuscous; abdomen grey tinged with fuscous, the anal tuft and ventral surface tinged with ochreous. Fore wing pale brownish grey; the costal edge black towards base; a black point at base and two subbasal points; an antemedial series with more prominent spot on costa, the points in cell and on inner margin nearer the base; a point at middle of cell, with a spot on costa above it; a discoidal lunule; the postmedial line dentate, bent outwards below costa, angled at veins 6 and 4, then retracted to below end of cell with a line on its inner side, more or less fuscous suffusion between it and end of cell;

obscure subterminal and terminal series of spots. Hind wing fuscous grey.



Fig. 318.—*Parasiccia punctatissima*, ♂. 1.

Ab. 1. Head, thorax, and fore wing whiter, irrorated with black

Ab. 2. Head, thorax, and fore wing strongly suffused with black.

Hab. CHINA, Ichang (Pratt) 1 ♂, Chan-yang, Wa-shan, Omei-shan, Chia-ting-fu, Wa-ssu-kow, Che-ton, Niton. *Exp.* 30 millim.

SECT. II. Antennæ of male serrate, with very long bristles and fascicles of cilia.

A. Fore wing with bands and large discal brown patch *maculata*.

B. Fore wing with series of spots.

a. Fore wing with the ground-colour white..... *maculifascia*.

b. Fore wing with the ground-colour grey..... *altaica*.

*868. *Parasiccia maculata*. (Plate XXIX. fig. 24.)

Nola maculata, Ponj. Bull. Soc. Ent. Fr. (6) vi. p. cl (1886); Kirby, Cat. Het. p. 361.

♂. White; antennæ brownish; patagia brown; legs banded with brown. Fore wing with irregular fuscous-brown markings on basal area formed by a patch on costal area conjoined to a spot in cell, and patch below the cell; a curved antemedial band conjoined at middle to a large patch occupying the whole medial area, narrowing towards costa and inner margin, its outer edge strongly curved and angled at veins 6 and 4, and traversed by a fine irregularly dentate whitish line arising at vein 6, oblique to submedian fold, where it is strongly angled, then bent outwards to inner margin; a spot below costa towards apex, and subapical and medial spots touching the termen; cilia brown. Hind wing tinged with brown except towards tornus and with indistinct diffused waved medial and post-medial bands; brown patches on termen just below apex and above middle.

Hab. W. CHINA, Moupin, Chia-kou-ho, Coll. Leech. *Exp.* 28 millim.

869. *Parasiccia maculifascia*.

Emene maculifascia, Moore, P. Z. S. 1878, p. 33, pl. 3. f. 10; Hmps. Moths Ind. ii. p. 92; Kirby, Cat. Het. p. 367.

Head and thorax white; palpi black; tegulæ and patagia with blackish patches; abdomen brownish white, the anal tuft of female

ochreous. Fore wing white; the costal edge blackish towards base; a black point below base of cell; obliquely placed subbasal black spots below costa and cell; a curved antemedial series of spots with larger spot on costa; a black spot at middle of cell and prominent discoidal spot; medial and postmedial series of spots with fuscous suffusion between them, the former angled outwards to discocellulars, the latter at veins 6 and 4; a subterminal series of spots angled outwards at veins 6 and 4; a terminal series of spots, with those at apex and vein 4 larger. Hind wing whitish, the terminal half suffused with fuscous; a discoidal spot and indistinct curved postmedial line, more prominent on underside; female with the hind wing wholly fuscous above.

Hab. SIKHIM (*Atkinson*), 1 ♀ cotype, type † ♂ in Coll. Staudinger. *Exp.* 30 millim.

870. *Parasiccia altaica*.

Nudaria altaica, Led. Verh. zool.-bot. Ges. Wien, v. p. 104. pl. i. f. 3 (1855); Kirby, Cat. Het. p. 360.

Emene fasciata, Butl. A. M. N. H. (4) xx. p. 399 (1877); id. Ill. Het. B. M. ii. p. 7, pl. 22. f. 9; Kirby, Cat. Het. p. 367.

Head and thorax grey; palpi, antennæ, fore legs, and spots on mesothorax blackish; abdomen fuscous, the anal tuft and ventral surface grey. Fore wing grey, the costal edge black towards base;



Fig. 319.—*Parasiccia altaica*, ♂. †.

a black point at base and subbasal spots on costa and below cell; an antemedial spot on costa, with one or two points below it in cell and one on vein 1; a spot at middle of cell and another on discocellulars; a double postmedial series of more or less confluent spots, angled at

veins 6 and 4, then incurved; a more or less complete subterminal series of spots, many of them sometimes absent or sometimes reduced to the spot on costa; a terminal series of points and spots on the cilia at apex and middle. Hind wing pale fuscous, with traces of a discoidal spot; cilia paler, with darker marks at apex and middle.

The antennæ of male vary from being hardly more than ciliate to having almost short branches.

Hab. ALTAI, type † ♂ in Coll. Staudinger; AMUR; JAPAN, Nikko (*Maries*), 1 ♀, Tokio (*Fenton*), 1 ♂, 1 ♀, (*Whitely*) 1 ♂, (*Jonas*) 2 ♂, type *fasciata*, Hakodaté (*Andrews*), 1 ♂. *Exp.* 26 millim.

SECT. III. Antennæ of male ciliated.

871. *Parasiccia nocturna*, n. sp.

Head and thorax blackish; abdomen dark grey. Fore wing dark grey; a diffused sinuous sub-basal line; a minutely dentate antemedial line angled on median nervure; a spot on middle of cell and discoidal lunule; an obscure medial line strongly dentate at angles of cell; a minutely dentate postmedial line angled at veins 6 and 4, then retracted; an

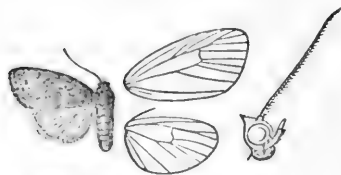


Fig. 320.—*Parasiccia nocturna*, ♂. 1.

irregularly dentate subterminal line expanding towards costa; a terminal series of points. Hind wing fuscous grey.

Hab. ASSAM, Khâsis, 1 ♂, 1 ♀ type. *Exp.*, ♂ 26, ♀ 30 millim.

Genus **IDOPTERUM**.

Idopterum, Hmps. Moths Ind. ii. p. 103 (1894)..... Type. *ovale*.

Proboscis fully developed; palpi upturned, slender, and not quite reaching vertex of head; antennæ of female almost simple; tibiæ with the spurs moderate; abdomen with the three terminal segments strongly dilated. Fore wing rather narrow, the costa arched, the apex rounded, the termen obliquely rounded; vein 2 from middle of cell, curved at base; 3 from long before angle; 5 from well above angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from a point or very shortly stalked. Hind wing with vein 2 from middle of cell; 3, 4 from angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

*872. *Idopterum ovale*.

Idopterum ovale, Hmps. Moths Ind. ii. p. 103 (1894).

♀. Pale brown; head and patagia fulvous yellow; palpi at tips and antennæ blackish; abdomen fuscous brown, the extremity fulvous. Fore wing with the base and fasciæ on costa and inner margin yellowish white; the costal edge black towards base; an oblique yellowish antemedial line. Hind wing with the inner margin whitish.



Fig. 321.—*Idopterum ovale*, ♀. 1.
(From Moths Ind. vol. ii.)

Hab. BURMA, Bernardmyo (*Doherty*), type † ♀ in Coll. Elwes. *Exp.* 28 millim.

Genus **OVIPENNIS**, nov.

Type, *O. dudgeoni*.

Proboscis fully developed; palpi porrect, extending just beyond frons; antennæ of female ciliated; tibiæ with the spurs short; abdomen dorsally clothed with rough hair. Fore wing rather narrow, the costa arched, the apex rounded, the termen obliquely rounded; vein 2 from middle of cell;

3 from well before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 almost from a point, 11 curved. Hind wing with vein 2 from beyond middle of cell; 3 from before angle; 5 from just above angle; 6, 7 stalked; 8 from middle of cell.

*873. *Ovipennis dudgeoni*.

Nudaria dudgeoni, Elwes, P. Z. S. 1890, p. 388, pl. 32. f. 10; Hmps. Moths Ind. ii. p. 104; Kirby, Cat. Het. p. 361.

♀. Head orange-yellow; antennæ fuscous except towards base; thorax fuscous, the patagia with orange patches at base and extremity; legs fuscous, the 1st joint of tarsi white; abdomen fuscous. Fore wing with black patch at base followed by a whitish patch, then a fuscous patch extending to near termen, bisected by a yellow streak leaving the inner and terminal areas yellow; the costal area yellowish



Fig. 322.—*Ovipennis dudgeoni*, ♀. $\frac{1}{2}$.

white, expanding into a patch at apex; cilia brownish yellow, black towards apex. Fore wing with the basal area yellowish; a diffused postmedial fuscous patch; the inner and terminal areas yellow; the apex white; cilia yellow, fuscous towards apex.

Hab. SIKHIM (*Dudgeon*), 1 ♀ type† in Coll. Elwes. *Exp.* 26 millim.

Genus **MACHÆROPHORA.**

Type.

Machairophora, Hmps. Ill. Het. ix. p. 86 (1893) *fulvipuncta*.

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons; antennæ bipectinate, with short stiff branches; hind tibiae with the medial spurs absent; abdomen clothed with rough hair. Fore wing long and rather narrow; vein 2 from beyond middle of cell; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 stalked, 11 becoming coincident with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 stalked; 8 from beyond middle of cell.

874. *Machærophora fulvipuncta*.

Machairophora fulvipuncta, Hmps. Ill. Het. ix. p. 86, pl. 159. f. 10 (1893); id. Moths Ind. ii. p. 121.



Fig. 323.—*Machærophora fulvipuncta*, ♂. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

♂. Black-brown; head, tegulae, and patagia with some fulvous hair; tarsi, hind tibiae, and ventral surface of abdomen orange-yellow; wings clothed with hair-like scales. Fore wing with more or less prominent orange-yellow patch on middle of inner area, and sometimes slight spots at base and subterminal spots above veins 1, 2, 5, and 7.

♀ apterous (*fide* E. E. Green).

Hab. CEYLON, Maskelyia (*Green*), 3 ♂, type. *Exp.* 20 millim.

Genus **ASURIDIA**, nov.Type, *A. carnipicta*.

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons; antennæ of male with bristles and cilia; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing rather narrow, the costa arched; vein 2 from middle of cell, oblique; 3 from near angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 stalked, 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle; 5 from well above angle; 6, 7 stalked; 8 from towards angle of cell.

- A. Fore wing with the cilia black *carnipicta*.
 B. Fore wing with the cilia yellowish.
 a. Hind wing pale crimson *nigriradiata*.
 b. Hind wing fuscous black *metaphæa*.

875. *Asuridia carnipicta*.

Ammatho carnipicta, Butl. Trans. Ent. Soc. 1877, p. 342; Kirby, Cat. Het. p. 308.

♂. Head, thorax, and abdomen greyish tinged with crimson, the tegulae and patagia brighter crimson. Fore wing crimson; the costal edge black to the antemedial line, which is excurved from costa to submedian fold, where it is slightly angled inwards; the medial line oblique from costa to median nervure, then sinuous, the costal edge black from it to apex; a



Fig. 324.—*Asuridia carnipicta*, ♂. 1.

discoidal black spot; the postmedial line arising from nearly the same point on costa as the medial line, strongly angled beyond the cell, then retracted to lower angle and excurved again above inner margin, a series of black streaks on veins 2–7 from it to near termen, the uppermost forking on veins 7, 8, 9; cilia black. Hind wing pale crimson; the cilia ochreous, fuscous at base towards apex.

Hab. CHINA, Nankow Pass, 1 ♂ type. *Exp.* 26 millim.

876. *Asuridia nigriradiata*.

Mitochrista nigriradiata, Hmps. Moths Ind. iv. p. 501 (1896); Dudgeon, J. Bomb. N. H. Soc. 1899, pl. ii. f. 15.

♀. Head and thorax pink; palpi and fore legs blackish; mesothorax with paired black spots; abdomen pale pink. Fore wing pink; two black points at base; the costa streaked with black to the antemedial line, which is excurved from costa to submedian fold, where it is strongly angled inwards, then angled outwards on vein 1; a straight oblique medial line; a discoidal spot; the postmedial line excurved from costa to vein 3, then incurved and excurved again above inner margin, a series of streaks on the veins

from it to near termen, the streak nearest costa forked, the black markings slightly outlined with grey. Hind wing pale crimson.

Hab. BHUTAN (*Dudgeon*), 1 ♀ type. *Exp.* 28 millim.

877. *Asuridia metaphæa*, n. sp. (Plate XXIX. fig. 20.)

♀. Head, thorax, and abdomen ochreous yellow; tegulæ more orange. Fore wing ochreous, irrorated with black scales; the costa black towards base; obliquely placed subbasal black marks in cell and above and below submedian fold; an antemedial slightly sinuous line incurved to costa; an oblique medial line angled inwards almost to the medial line in cell; a discoidal point; the postmedial line very oblique from costa to vein 4, where it is very acutely angled, then retracted to lower angle of cell; the veins beyond it broadly streaked with black to near termen; a fine terminal black line. Hind wing fuscous black; the base, inner margin, and cilia ochreous.

Hab. SIKHIM, 2800 ft. (*Pilcher*), 1 ♀ type. *Exp.* 28 millim.

Genus **MELANÆMA.**

Type.

Melanæma, Butl. A. M. N. H. (4) xx. p. 397 (1877) *venata*.

Palpi porrect to just beyond the frons; proboscis fully developed; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather narrow; vein 2 from just beyond middle of cell; 3 from close to angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 stalked. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle; 4, 5 from angle; 6, 7 on a long stalk; 8 from towards end of cell.

SECT. I. Antennæ of male bipectinate, with moderate branches.

878. *Melanæma venata*.

Melanæma venata, Butl. A. M. N. H. (4) xx. p. 397 (1877); id. Ill. Het. B. M. ii. p. 6, pl. 22. f. 5; Kirby, Cat. Het. p. 304.

♂. Ochreous; head and thorax tinged with crimson; shoulders



Fig. 325.—*Melanæma venata*, ♂. †.

and mesothorax with black points; tibiæ and tarsi banded with black. Fore wing with the costal and terminal areas crimson; the basal half of costa, the veins except costal nervure, the cell, and submedian fold streaked with

black. Hind wing with the veins streaked with fuscous; the termen tinged with crimson.

Hab. AMUR; JAPAN, Yokohama (*Jonas*), 2 ♂, type, Tokio (*Fenton*), 3 ♂. *Exp.* 34 millim.

SECT. II. Antennæ of male ciliated.

- A. Fore wing with the ground-colour scarlet *sanguinea*.
 B. Fore wing with the ground-colour yellow *ni*.

879. *Melanæma sanguinea*, n. sp.

♂. Head, thorax, and abdomen bright scarlet; frons, vertex of



Fig. 326.—*Melanæma sanguinea*, ♂. †.

head, tegulæ, patagia, meso- and metathorax with black spots. Fore wing scarlet suffused with fuscous black, the ground-colour appearing as streaks on the veins of basal area; an antemedial band bent inwards at costa and constricted in cell; more or less prominent traces of a postmedial band, and slight streaks on the veins of terminal area. Hind wing bright scarlet, with more or less prominent fuscous suffusion in terminal interspaces; the cilia black from apex to towards tornus.

♀ duller scarlet; head, thorax, and fore wing irrorated with fuscous; fore wing with the costa and cilia black; antemedial, medial, and postmedial fuscous lines, the two former slightly sinuous, the last retracted to costa; some obscure subterminal patches.

Hab. N. GUINEA, Kapaur (*Doherty*), 1 ♀, Fergusson I. (*Meek*), 2 ♂, type. *Exp.*, ♂ 24, ♀ 28 millim.

*880. *Melanæma ni*. (Plate XXIX. fig. 15.)

Lyclene ni. Heyl, C. R. Soc. Ent. Belge, xxxv. p. 415 (1891); Kirby, Cat. Het. p. 914.

♀. Yellow; shoulders and patagia with black points. Fore wing with subbasal black spot; the costal edge black towards base, with slight crimson streak below it; a crimson fascia below the cell to the oblique antemedial line, which is fuscous edged with crimson, and giving off an oblique line in cell to join the postmedial line above inner margin; a discoidal point conjoined to the postmedial line, where it is bent outwards below costa, then oblique, minutely waved and edged with crimson; a subterminal series of fuscous spots on crimson patches, the spots on veins 6 and 4 nearer the termen. Hind wing pale yellow.

Hab. JAVA, Buitenzorg, type † ♀ in Coll. Heylaerts. *Exp.* 20 millim.

Genus **XANTHETIS**, nov.

Type, *X. luzonica*.

Proboscis fully developed; palpi upturned, not reaching vertex of head; antennæ of male minutely serrate and ciliated; tibiæ with the spurs moderate. Fore wing with the apex rounded; vein 2 from beyond middle of cell, oblique; 3 from before angle; 5 from just above angle; 6 from below upper angle; 7,

8 stalked ; 9 absent ; 10, 11 free. Hind wing with vein 2 from beyond middle of cell ; 3, 4 stalked ; 5 from well above angle ; 6, 7 on a long stalk ; 8 from middle of cell.

SECT. I. Fore wing narrow and elongate.

881. *Xanthetis luzonica*.

Cyme luzonica, Feld. Reis. Nov. pl. 139. f. 53 (1875); Kirby, Cat. Het. p. 298.

Peronettis naringa, Swinh. Cat. Het. Mus. Oxon. p. 99, pl. iii. f. 16 (1892).

♂. Head orange, palpi at tips and antennæ black ; thorax black with orange patches on tegulæ, patagia, meso- and metathorax ; legs orange banded with black ; abdomen black, with the terminal



Fig. 327.—*Xanthetis luzonica*, ♂. $\frac{1}{4}$.

segment orange. Fore wing black, with the base orange ; a broad orange antemedial band not reaching costa or inner margin ; a fascia on middle part of subcostal nervure with its lower edge excised at middle ; a triangular patch below middle

of cell, sometimes connected with a somewhat triangular spot beyond the cell ; a subterminal band incurved below apex and not reaching costa or inner margin. Hind wing black ; the basal area orange, emitting a fascia on costa to beyond middle.

Hab. PHILIPPINES, Manilla (*J. J. Walker*), 1 ♂. *Exp.* 26 millim. Type † *naringa* in Mus. Oxon, type † in Coll. Rothschild.

SECT. II. Fore wing shorter and broader.

882. *Xanthetis ichorina*. (Plate XXX, fig. 10.)

Sesapa ichorina, Butl. Trans. Ent. Soc. 1877, p. 345; Kirby, Cat. Het. p. 310.

♀. (Head and abdomen wanting) ; thorax orange ; a slight dark mark at end of patagia. Fore wing yellow ; a fuscous and crimson basal spot ; the costal edge crimson towards base ; two obscure purplish-fuscous antemedial sinuous lines conjoined in cell to a similar medial line with crimson on their edges ; a discoidal fuscous and crimson spot ; a postmedial crimson-edged purplish-fuscous crenulate line, bent outwards below costa, then obliquely curved to submedian fold and bent outwards to inner margin ; a subterminal series of fuscous points on crimson suffusion. Hind wing yellow tinged with crimson.

Hab. NATAL (*Gueinzus*), 1 ♀ type. *Exp.* 20 millim.

Genus ENDROSA.

Endrosa, Hübn. Verz. p. 167 (1827) Type. *rosida*.

Proboscis aborted, minute ; palpi minute, clothed with long hair ; frons

clothed with long hair; antennæ of male minutely serrate and ciliated; pectus clothed with long hair; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing with vein 2 from middle of cell, oblique, 3 from before angle; 4, 5 from angle; 7 from cell or stalked with either 6 or 8, 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from well beyond middle of cell; 3, 4 from angle; 5 coincident with 4, sometimes given off from it near termen; 6, 7 stalked; 8 from towards end of cell.

- A. Abdomen black, with the terminal segment orange.
 a. Size large (over 30 millim.); colour deep orange..... *aurita*.
 b. Size small (under 28 millim.); colour paler orange *roscida*.
 B. Abdomen orange or orange with black bands *kuhlweini*.

883. *Endrosa aurita*.

- Tinea irrorella*, Sulz. Gesch. Ins. pl. 23. f. 10 (1776), nec Linn.
Noctua aurita, Esp. Schmett. iv. (1) p. 102, pl. 94. f. 1 (1787); Godt. Lép. Fr. iv. p. 387, pl. 40. f. 1; Freyer, Neu. Beitr. v. p. 16, pl. 392. f. 1; Stgr. Cat. p. 53; Kirby, Cat. Het. p. 356.
Bombyx ramosa, Fabr. Ent. Syst. iii. (1) p. 463 (1793); Freyer, Neu. Beitr. iv. p. 149, pl. 374. ff. 1-3; Godt. Lép. Fr. iv. p. 385, pl. 39. f. 6.
Bombyx compluta, Hüb. Eur. Schmett. ii. pp. 108, 292, 293 (1827); Freyer, Neu. Beitr. vi. p. 81, pl. 530. ff. 3-4.
Bombyx imbuta, Hüb. Eur. Schmett. ii. ff. 109-110 (1827).
Setina aurita, ab. *transiens*, Stgr. Cat. p. 53 (1871).
Setina ramosa, ab. *pallens*, Mill. Ann. Soc. Lyon (2). xix. p. 6, pl. 109. ff. 9-11 (1872).

Head, thorax, and abdomen black; tegulæ, patagia, greater part of legs, and terminal segment of abdomen orange; wings orange. Fore wing with subbasal black point; the costal edge black at base; an oblique medial series of three spots and postmedial series of four spots, those at upper and lower angles of cell somewhat dentate on the veins; a more or less developed subterminal series of spots often extending round below the apex, the spots above veins 2, 4, and 5 placed further from termen. Hind wing with more or less developed subterminal series of spots, those towards apex always present; a black shade usually present at base.

Ab. 1. The orange parts wholly suffused with brown, the tegulæ and patagia black.

Ab. 2. *transiens*. Fore wing with the medial spot on median nervure connected by slight streaks with the postmedial spots at lower angle of cell and on vein 2.—Alps.

Ab. 3. *imbuta*. Fore wing with black streaks on the veins from base to near termen.—Higher Alps.

Ab. 4. *ramosa*. Fore wing with the streaks very strongly developed.—High Alps.

Ab. 5. *pallens*. Ground-colour pale ochreous.

Hab. NORWAY, Zell. & Frey Colls.; AUSTRIAN TYROL (*Champion*); SWITZERLAND, Engadine, Wallis, Zell. & Frey Colls. *Exp.* 30-40 millim. Type † *transiens* in Coll. Staudinger.

884. *Endrosa roscida*.

Noctua roscida, Schiff. Wien. Verz. p. 68 (1776); Esp. Schmett. iv. p. 106, pl. 94. ff. 6-7; Hübn. Eur. Schmett. ii. ff. 106-107; Freyer, Neu. Beitr. vi. p. 80, pl. 530. ff. 1-2; Godt. Lép. Fr. iv. p. 390, pl. 40. f. 2; Staud. Cat. p. 53; Kirby, Cat. Het. p. 358.

Lithosia melanomos, Nick. Stett. ent. Zeit. 1845, p. 104; Freyer, N. Beitr. v. p. 123, pl. 459. f. 2; Herr.-Schäff. Eur. Schmett. ii. p. 155. ff. 69-70.

Head, thorax, and abdomen black; tegulae, patagia, the greater part of legs, and extremity of abdomen orange; metathorax sometimes with orange patch; wings orange-yellow or orange; an oblique medial series of three black points; a post-medial series of four spots, those at upper and lower angles of cell somewhat dentate; a more or less developed subterminal



Fig. 323.—*Endrosa roscida*, ♂. †.

series of spots, those above veins 2, 4, 5 further from termen. Hind wing with black shade at base; three or four subterminal spots towards apex and two below vein 2.

Ab. 1. *melanomos*. Tegulae and patagia black; wings more or less completely suffused with fuscous; fore wing with black streaks on the veins to the postmedial spots.—Higher Alps.

Hab. NORWAY, Zell. Coll.; FRANCE; GERMANY; AUSTRIA, Zell. & Frey Colls.; HUNGARY; SWITZERLAND, Tyrol, Zell. & Frey Colls.; CENTR. RUSSIA; ARMENIA; ALTAI. *Exp.* 24-28 millim.

Larva. Black-brown, thickly variegated with yellow; an ill-defined dorsal yellow line; warts with tufts of black hair. *Food-plant*, ground-lichens.

885. *Endrosa kuhlweini*.

Bombyx kuhlweini, Hübn. Eur. Schmett. ii. ff. 290-291 (1827); Dup. Lép. Fr. Suppl. iii. p. 39, pl. 3. f. 4; Staud. Cat. p. 53; Kirby, Cat. Het. p. 356.

Setina alpestris, Zell. Stett. ent. Zeit. xxvi. p. 34 (1865).

Orange; frons and thorax with patches of black. Fore wing with oblique medial series of three black points; a postmedial series of four spots, those at upper and lower angles of cell somewhat dentate; a more or less developed and complete subterminal series of spots, those above veins 2, 4, and 5 placed slightly further from termen. Hind wing with more or less developed subterminal series of spots, those towards apex always developed.

Ab. 1. *alpestris*. Rather larger; abdomen with black bands and the ventral surface blacker.—Alps.

Hab. GERMANY, S. & E., Zell. & Frey Colls.; AUSTRIA, Frey Coll.; SWITZERLAND, Tyrol, Zell. & Frey Colls.; SWEDEN; CENTR. RUSSIA; LIVONIA; ARMENIA. *Exp.* 28-38 millim.

Larva. Kirby, Eur. Butt. & Moths, p. 96.

Blackish; thickly irrorated with pale yellow, forming subdorsal series of spots; a yellow dorsal line. *Food-plant*, ground-lichens.

Genus **CYBOSIA.**

Type.

Cybosia, Hübner, Verz. p. 167 (1827)..... *mesomella*.

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons, which is clothed with rough hair; antennæ with bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing with vein 2 from middle of cell, curved at base; 3 from well before angle; 5 from above angle; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3 from close to angle; 4, 5 stalked; 6, 7 stalked; 8 from before middle of cell.

886. *Cybosia mesomella*.

Tinea mesomella, Linn. Syst. Nat. i. p. 535 (1758); Clerck, Icones, pl. 4. f. 14; Godt. Léop. Fr. v. p. 11, pl. 41. f. 1; Staud. Cat. p. 53; Kirby, Cat. Het. p. 355.

Noctua clorana, Schiff. Wien. Verz. p. 68 (1776); Hübner, Eur. Schmett. ii. ff. 101, 266; Steph. Ill. Brit. Ent., Haust. ii. p. 100; Esp. Schmett. iv. p. 98, pl. 93. ff. 1-5.

Phalena quadrilis, Fourer. Ent. Paris, ii. p. 294 (1785).

Lithosia lutarella, Haw. Lep. Brit. p. 148 (1809).

Head and tegulæ orange-yellow; thorax and basal half of



Fig. 329.—*Cybosia mesomella*, ♂. $\frac{1}{2}$.

abdomen whitish; terminal half of abdomen, pectus and legs orange-yellow, the last streaked with fuscous. Fore wing yellowish white; the costa orange-yellow, widening towards apex; termen and cilia orange-yellow; black points just beyond middle, below costa, and on vein 1. Hind wing suffused with fuscous, the termen and cilia orange-yellow.

Ab. 1. Thorax, basal half of abdomen, and fore wing orange-yellow.

Hab. EUROPE, Central, North Central, and Eastern; ASIA, Western and Northern, Zell. & Frey Colls. *Exp.* 30-34 millim.

Larva. Meyrick, Brit. Lep. p. 29; Barrett, Lep. Brit. ii. p. 207, pl. 66. f. 5.

Blackish; hairs black; head and a patch on 1st somite deep black. *Food-plant*, lichens; 8-5.

Genus **PHILEA.**

Type.

Philea, Zett. Ins. Lapp. p. 931 (1840)..... *irrorella*.

Proboscis aborted, minute; palpi porrect, not extending beyond frons, which is slightly hairy; antennæ of male minutely serrate, with bristles and cilia; tibiæ with the spurs moderate; abdomen somewhat roughly scaled; wings thinly scaled. Fore wing rather narrow; vein 2 from middle of cell; 3 from before angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from angle; 4, 5 stalked, sometimes nearly to termen or rarely coincident; 6, 7 stalked; 8 from middle of cell.

887. *Philea irrorella*.

Tinea irrorella, Linn. Syst. Nat. i. p. 353 (1758); Clerck, Icones, pl. 4. f. 5; Steph. Ill. Brit. Ent., Haust. ii. p. 99, pl. 17. f. 1; Esp. Schmett. iv.

- p. 103, pl. 94. ff. 3-4; Hübn. Eur. Schmett. ii. f. 105; Godt. Lép. Fr. iii. p. 392, pl. 41. ff. 3-4; Staud. Cat. p. 53; Kirby, Cat. Het. p. 356.
Phalæna ochracea, Scop. Ann. Hist. Nat. v. p. 114 (1772).
Phalæna flavo-nigropunctata, Retz. Gen. Spec. Ins. p. 40 (1783).
Bombyx signata, Borkh. Eur. Schmett. iii. p. 258 (1789); Esp. Schmett. iv. p. 103, pl. 94. f. 5.
Lithosia binumerica, Drap. Ann. Sci. Phys. Brux. i. p. 55, pl. 4. f. 8 (1819).
Bombyx flavicans, Hübn. Eur. Schmett. ii. ff. 344-345 (1827); Boisd, Icones, ii. p. 110, pl. 58. f. 7; Dup. Lép. Fr. iii. p. 41, pl. 3. f. 5; Herr.-Schäff. Schmett. Eur. ii. p. 154, ff. 48-49.
Setina andereggii, Herr.-Schäff. Schmett. Eur. ii. p. 156, ff. 45-46 (1844).
Lithosia freyeri, Nick. Stett. ent. Zeit. vi. p. 105 (1845); Freyer, Neu. Beitr. v. p. 129, pl. 459.
Setina andereggii, var. *riffelensis*, Fallon, Ann. Soc. Ent. Fr. (4) v. p. 99, pl. 2. f. 2 (1865).
Setina irrorella, var. *insignata*, Staud. Stett. ent. Zeit. xlii. p. 399 (1881).
Setina irrorella, var. *flavicans*, Rom. Mém. Lép. i. p. 84, pl. 4. f. 8 (1885).
Setina irrorella, var. *lata*, Christ. Deutsch. ent. Zeit., Lep. vi. p. 88 (1893).

Orange-yellow; head black; mesothorax with black patch; pectus, greater part of legs, and abdomen black, the last with the terminal segment orange. Fore wing with oblique medial series of three small black spots; a postmedial series of four spots, those at



Fig. 330.—*Philea irrorella*, ♂. 1.

upper and lower angles of cell somewhat dentate or separated into points; a subterminal series of small spots, those above veins 4 and 5 further from termen. Hind wing with slight subterminal spots towards apex and below vein 2.

Ab. 1. *insignata*. Both wings with hardly a trace of the subterminal spots.—Siberia.

Ab. 2. The orange areas suffused with rufous.

Ab. 3. *freyeri*. Paler; fore wing slightly tinged with fuscous leaving the margins only orange-yellow.

Ab. 4. *flavicans*. Abdomen more or less completely yellow.

Ab. 5. *signata*. Fore wing with the medial and postmedial spots conjoined by black streaks.

Ab. 6. *andereggi*. Fore wing with the black streaks extending from base to near termen.—High Alps.

Ab. 7. *riffelensis*. Fore wing with black suffusion between the black streaks.—High Alps.

Hab. BRITAIN; FRANCE; GERMANY; AUSTRIA, Tyrol (*Champion*); SWITZERLAND, Engadine, Zell. & Frey Colls.; DALMATIA; NORWAY, Zell. Coll.; CENTR. RUSSIA; PONTUS; ARMENIA; W. SIBERIA, 1 ♂, type † *insignata* in Coll. Staudinger. *Exp.* 24-40 millim.

Larva. Meyr. Lep. Brit. p. 30; Barrett, Brit. Lep. ii. p. 204, pl. 66. f. 4.

Black-brown, on sides dark reddish grey or purple-grey; hairs

blackish; a dorsal series of bright yellow spots; a subdorsal interrupted series of dull yellow spots; a spiracular interrupted series of bright yellow spots; head black. *Food-plant*, lichens; 9-5.

Genus **NUDARIDIA**, nov.

Type, *N. muscula*.

Proboscis aborted, minute; palpi porrect, reaching well beyond the frons; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs long; wings rather sparsely clothed with hair-like scales. Fore wing with the apex rounded in male, more produced in female; vein 2 from middle of cell; 3 from well before angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards end of cell; 3, 4 stalked; 5 from above angle; 6, 7 stalked; 8 from towards end of cell.

- A. Fore wing of male fulvous brown..... *ochracea*.
B. Fore wing of male fuscous brown..... *muscula*.

888. *Nudaridia ochracea*.

Nudaridia ochracea, Brem. Bull. Acad. Pétersb. iii. p. 476 (1861); id. Lép. Ost-Sib. p. 38, pl. 3. f. 15 (1864); Kirby, Cat. Het. p. 360.

♂. Fulvous brown; antennæ with the branches blackish; fore and mid legs tinged with fuscous. Fore wing with the costal edge blackish towards base; a black point at base of cell; a discoidal point; a subterminal series of points angled outwards on veins 6 and 4. Hind wing fuscous, the cilia fulvous.

♀. Pale ochreous; fore wing with the subterminal series of points reduced to those on veins 6 and 4.

Hab. AMUR, 1 ♂, ♀ in Coll. Staudinger. *Exp.* 18 millim.

889. *Nudaridia muscula*.

Nudaridia muscula, Staud. Rom. Mém. Lép. iii. p. 185, pl. 10. ff. 9 *a, b* (1887); Kirby, Cat. Het. p. 361.

♂. Fuscous brown. Fore wing with black point at base of median nervure; an antemedial fuscous minutely waved line, strongly angled on median nervure and very oblique towards costa and inner margin; a prominent discoidal spot; a minutely dentate postmedial line bent outwards below costa and angled



Fig. 331.—*Nudaridia muscula*, ♂. 3.

on veins 6 and 4, then oblique; a subterminal series of points angled at veins 6 and 4.

♀ pale brownish ochreous; fore wing with the antemedial line and subterminal points very indistinct; the postmedial line obsolete.

Hab. AMUR, 1 ♂. *Exp.*, ♂ 18, ♀ 22 millim. Type † ♂ ♀ in Coll. Staudinger.

Genus **THUMATHA**.

- | | |
|---|---------------------|
| <i>Thumatha</i> , Wlk. xxxv. 1900 (1866) | Type. |
| <i>Pelobrochis</i> , Lucas, P. Linn. Soc. N. S. W. (2) vii. p. 250 (1892) | <i>fuscescens</i> . |
| <i>Dictenus</i> , Butl. P. Z. S. 1896, p. 846 | <i>inconstans</i> . |

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons, which is clothed with rough hair; antennæ of male bipectinate, with short stiff branches dilated at extremity; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing rather short and broad; vein 2 from middle of cell; 3 from well before angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from near middle of discocellulars; 6, 7 on a long stalk; 8 from towards end of cell.

- A. Wings orange *inconstans*.
 B. Wings grey-brown *fuscescens*.

890. *Thumatha inconstans*.

Dictenus inconstans, Butl. P. Z. S. 1896, p. 846, pl. xlii. f. 5.

♂. Head, thorax, and abdomen black, sometimes some orange hair on vertex of head; the base of abdomen with some orange hair; anal tuft orange; wings orange-yellow, clothed with hair-like scales. Fore wing with a little black suffusion at base; the costa and inner margin black; a black discoidal spot; a terminal black band with minutely dentate inner edge. Hind wing with fuscous discoidal point.

Ab. 1. Fore wing with the basal half only of costa and inner margin black; no terminal black band.

Hab. NYASA-LAND, Mt. Kasungu 7425 ft. (*Crawshay*), 2 ♂, type. *Exp.* 20 millim.

891. *Thumatha fuscescens*.

Thumatha fuscescens, Wlk. xxxv. 1901 (1866); Hmps. Ill. Het. B.M. ix. p. 86, pl. 158. f. 18; id. Moths Ind. ii. p. 122; Kirby, Cat. Het. p. 364. *Nudaria infantula*, Saalm. Ber. Senck. Ges. 1879, p. 261; id. Lep. Madag. p. 168, pl. 6. f. 81; Kirby, Cat. Het. p. 361. *Scædora rava*, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1079 (1890); Kirby, Cat. Het. p. 348.



Fig. 332.—*Thumatha fuscescens*, ♂. ♀. (From Moths Ind. vol. ii.)

Grey-brown; fore and mid tibiæ and tarsi blackish above. Fore wing with blackish suffusion at base of costal area; traces of an antemedial line angled outwards on subcostal and median nervures; a prominent black discoidal spot; a fuscous patch on costa before apex; a subterminal series of short dark streaks on the veins, the one on vein 5 further from termen.

Hab. W. AFRICA, Ogové R.; MADAGASCAR; ASSAM (*Hartert*); CEYLON (*Green*), 1 ♂; S.E. BORNEO (*Doherty*), 1 ♂; QUEENSLAND, Moreton Bay (*Diggles*), 2 ♂, type, Brisbane (*Lucas*), Coll. Meyrick. *Exp.* 16 millim.

Genus GRAPTASURA, nov.

Type, *G. polygrapha*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of female with bristles and cilia; (mid and hind legs wanting). Fore wing with vein 2 from beyond middle of cell; 3 from before angle; 5 from

above angle; 6 from below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3 from near angle; 5 from above angle; 6, 7 coincident; 8 from towards end of cell.

*892. *Graptasura polygrapha*.

Cyme polygrapha, Feld. Reis. Nov. pl. 106. f. 7 (1874); Kirby, Cat. Het. p. 299.

♀. Orange-yellow; vertex and back of head, tegulæ, shoulders, prothorax, and coxæ with black spots; mesothorax with curved lines behind; abdomen with some black dorsal suffusion and sub-lateral series of spots. Fore wing with black point at base of costa, the costal edge black towards base; an irregular subbasal series of black marks followed by a streak below costa, an elongate black-edged mark in cell, and a comma-shaped mark below the cell; a



Fig. 333.—*Graptasura polygrapha*, ♀. †.

strongly curved double antemedial black line bent round on inner margin almost to base, connected at middle with the double medial line which expands and encloses a space in the cell; a discoidal point; a double medial line strongly excurved from below costa to vein 2 and emitting teeth on its outer side at veins 6 and 4, and with a dentate mark beyond it below costa; a strongly dentate subterminal line, the tooth on vein 4 intersected by black lines, and the three teeth below it with a line across their bases; the costa towards apex and cilia black, with five crimson spots on costa and apical half of termen. Hind wing with slight black suffusion below basal half of cell and on inner margin; a terminal black band expanding towards costa and angled at vein 4.

Hab. CELEBES, type † ♀ in Coll. Rothschild. *Exp.* 38 millim.

Genus **NEASURA**, nov.

Type, *N. hypophæola*.

Proboscis fully developed; palpi slight, porrect, not reaching as far as the frons, which is clothed with rough hair; antennæ of male minutely serrate, with very long bristles and cilia; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing moderately broad; vein 2 from middle of cell, oblique; 3 from long before angle; 4, 5 coincident; 6 from below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from before angle; 5 from well above angle; 6, 7 on a long stalk; 8 from near angle of cell.

SECT. I. Fore wing with vein 7 from 8 after 9.

893. *Neasura apicalis*.

Setina apicalis, Wlk. ii. 521 (1854); Hmps. Moths Ind. ii. p. 123; Swinh. Cat. Het. Mus. Oxon. p. 118; Kirby, Cat. Het. p. 361.

Setina bipunctata, Wlk. Journ. Linn. Soc., Zool. iii. p. 185 (1859); Kirby, Cat. Het. p. 361.

♂. Fulvous orange; antennæ, fore legs, mid tibiæ and tarsi, and extremity of hind tarsi fuscous. Fore wing with black points at base of cell and on discocellulars. Hind wing pale yellow. Underside of fore wing suffused with fuscous except margins.



Fig. 334.—*Neasura apicalis*, ♂. 1.

Hab. CHINA, Foochow (Lay), 1 ♂ type; BURMA, Rangoon (Scott), 2 ♂; SINGAPORE, type † *bipunctata* in Mus. Oxon. Exp. 18 millim.

SECT. II. Fore wing with vein 7 from 8 before 9.

894. *Neasura hypophæola*, n. sp.

♂. Orange-yellow; fore and mid femora tinged with fuscous.



Fig. 335.—*Neasura hypophæola*, ♂. 1.

Hind wing paler except towards termen. Underside of fore wing fuscous except the margins, the basal third of costa fuscous.

Hab. SANGIR (Doherty), 2 ♂, type. Exp. 20 millim.

Genus ZYGÆNOSIA, nom. nov.

Type.

Zygænopsis, Swinh. Cat. Het. Mus. Oxon. p. 61 (1892), nec Feld. Lep. 1874

fuscimarginalis.

Proboscis fully developed; palpi porrect, minute; frons clothed with rough hair; antennæ of male bipectinate, with moderate branches; hind tibiæ with the medial spurs absent; abdomen clothed with rough hair. Fore wing with vein 2 from beyond middle of cell; 3 from well before angle; 5 from well above angle; 6 from well below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 slightly anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3 from near angle; 4, 5 from angle; 6, 7 coincident; 8 from towards end of cell.

A. Fore wing with orange patches on inner area *flavibasis*.

B. Fore wing without orange patches *fuscimarginalis*.

895. *Zygænusia flavibasis*.

Zygænopsis flavibasis, Swinh. Cat. Het. Mus. Oxon. p. 62 (1892).

Northia papua, Oberth. Ét. Ént. xix. p. 28, pl. v. f. 33 (1894).

♂. Head and thorax black; legs orange, tinged with fuscous above; abdomen orange, with dorsal black bands on 1st and terminal segments. Fore wing hyaline; the veins black; the margins suffused

with black, broadly on inner area and at apex; a subbasal orange patch on inner area and usually a smaller patch near tornus. Hind wing black, the costal area semihyaline.

Ab. 1. *papua*. Fore wing with the orange patches extending to near middle of wing.



Fig. 336.—*Zygænosa flavibasis*, ♂. ½.

Hab. KÉ I. (Wallace), type † ♀ in Mus. Oxon.; DOREY (*Doherty*), 1 ♂; N. GUINEA. *Exp.* 24 millim.

*895 a. *Zygænosa fuscimarginalis*. (Plate XXXV. fig. 9.)

Zygænopsis fuscimarginalis, Swinh. Cat. Het. Mus. Oxon. p. 61 (1892).

♀. Fuscous black. Fore wing with rounded medial hyaline patch extending from vein 12 to 1. Hind wing with hyaline patch extending from base to just beyond the cell, its lower edge rounded and extending to submedian fold.

Hab. DOREY (Wallace), 1 ♀ type † in Mus. Oxon. *Exp.* 26 millim.

Genus **TRICHOLEPIS**.

Type.

Tricholepis, Hmps. Ill. Het. viii. p. 44 (1891)..... *erubescens*.

Proboscis fully developed; palpi porrect, not reaching beyond frons; tibiæ with the spurs minute; hind tibiæ with the medial spurs absent. Fore wing long and narrow; vein 2 from beyond middle of cell; 3 from well before angle; 5 from above angle; 6 from well below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12 or connected with it by a bar. Hind wing with vein 2 from middle of cell; 3 from before angle; 5 from above angle; 6, 7 on a long stalk; 8 from close to angle of cell.

SECT. I. Antennæ of male bipectinate with long branches, of female with short branches.

896. *Tricholepis xanthomelas*, n. sp.

Head orange, the antennæ and vertex black; thorax black, the patagia orange; abdomen black; pectus, legs, and ventral surface

of abdomen orange. Fore wing black-brown, with large orange patch on inner area extending to beyond middle and leaving the costal and terminal areas broadly black. Hind wing orange, with rather broad terminal black band, its inner edge slightly angled at middle.



Fig. 337.

Tricholepis xanthomelas, ♂. ½.

Hab. TENIMBER (*Doherty*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 18, ♀ 22 millim.

SECT. II. Antennæ of male minutely serrate, with cilia and bristles.

897. *Tricholepis erubescens*.

Tricholepis erubescens, Hmps. Ill. Het. viii. p. 44, pl. 139. ff. 3, 12 (1891); id. Moths Ind. ii. p. 120; Kirby, Cat. Het. p. 89.

♂. Head and thorax orange-scarlet; fore tibiæ streaked with black; abdomen black, the extremity ochreous below; wings clothed with hair-like scales. Fore wing with oblique scarlet basal patch extending on costa to middle, the costal edge black; the outer area black slightly tinged with scarlet. Hind wing black, with scarlet streak on basal half of costa.

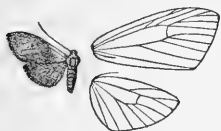


Fig. 338.—*Tricholepis erubescens*, ♂. †.
(From Moths Ind. vol. ii.)

♀. Abdomen with large ochreous tufts at extremity. Fore wing with the black area strongly suffused with scarlet; cilia of both wings scarlet.

Hab. NILGIRIS, 7000 ft. (*Hampson*), 3 ♂, 1 ♀ type. Exp. 20 millim.

Larva thickly clothed with short brown hair.

Genus *GYMNASURA*, nov.

Type, *G. saginæa*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons, which is somewhat prominent; antennæ of female with bristles and cilia; hind tibiæ with the medial spurs absent. Fore wing with vein 2 from middle of cell, oblique; 3 from well before angle; 5 from well above angle; 6 from well below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 slightly anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from close to angle; 4, 5 from angle; 6, 7 stalked; 8 from towards end of cell. Wings thinly scaled.

*898 *Gymnasura saginæa*.

Calligenia saginæa, Turner, Tr. R. Soc. S. Austr. 1899, p. 11.

♀. Head and thorax pale yellow; palpi fuscous at tips; patagia and mesothorax with fuscous spots; fore and mid tibiæ with fuscous patches; abdomen whitish.



Fig. 339.—*Gymnasura saginæa*, ♀. †.

Fore wing pale yellow; the costa fuscous towards base; a dark point in base of cell; a dark fascia below the cell from base to the antemedial curved line, which is angled inwards in submedian fold and is conjoined at middle to the medial line which is angled inwards to it; a black discoidal point; the postmedial line angled outwards below costa, then very oblique and joining the antemedial line near inner margin; the subterminal line irregular, dentate, with strong dentations extending almost to termen on veins 6 and 4. Hind wing yellowish white.

Hab. QUEENSLAND, Cairns (*C. J. Wild*), type ♀ in Coll. Turner. Exp. 24 millim.

Genus **ASURA**.

	Type.
<i>Asura</i> , Wlk. ii. 484 (1854)	<i>cervicalis</i> .
<i>Pitane</i> , Wlk. ii. 531 (1854), nec Wlk. ii. p. 462	<i>conferta</i> .
<i>Pallene</i> , Wlk. ii. 542 (1854)	<i>structa</i> .
<i>Cyllene</i> , Wlk. ii. 543 (1854), nec Newm. Col. 1840	<i>humilis</i> .
<i>Lyclene</i> , Moore, Lep. E. I. C. p. 300 (1859)	<i>humilis</i> .
<i>Nepita</i> , Moore, Lep. E. I. C. p. 302 (1859)	<i>conferta</i> .
<i>Cyme</i> , Feld. Sitz. Akad. Wien. xliii. p. 36 (1861).....	<i>reticulata</i> .
<i>Stonia</i> , Wlk. xxxi. 187 (1863)	<i>bipars</i> .
<i>Cymella</i> , Feld. Reis. Nov. p. 3 (1874), non deser.....	<i>congerens</i> .
<i>Setinochroa</i> , Feld. Reis. Nov. p. 9 (1874), non deser.	<i>infumata</i> .
<i>Adites</i> , Moore, Lep. Ceyl. ii. p. 61 (1882)	<i>hilaris</i> .

Proboscis fully developed; palpi porrect, slender, not reaching beyond the frons, which is hairy; tibiæ with the spurs short; abdomen dorsally clothed with rough hair; wings with hairy scaling. Fore wing with vein 2 from middle of cell; 3 from well before angle; 5 from above angle; 6 usually from well below upper angle; 7, 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from well before angle; 5 from or from above angle or stalked with 4; 6, 7 stalked; 8 from towards angle of cell.

SECT. I. (*Asura*). Antennæ of male bipectinate with long branches, of female with very short branches.

A. Fore wing with the basal half orange	<i>hemixantha</i> .
B. Fore wing with the basal area black, with orange patches.	
<i>a</i> . Hind wing with the basal area orange	<i>lydia</i> .
<i>b</i> . Hind wing with the basal area black.	
<i>a</i> ¹ . Metathorax with yellow patch; abdomen yellow ...	<i>bipars</i> .
<i>b</i> ¹ . Metathorax black; abdomen black, with dorsal and lateral orange stripes	<i>cervicalis</i> .
C. Fore wing orange, with four waved black bands	<i>conferta</i> .
D. Fore wing orange-red, with dentate black lines	<i>erythrias</i> .

899. *Asura hemixantha*, n. sp. (Plate XXX. fig. 5.)

♂. Head orange, with some black on vertex; antennæ black; thorax orange slightly mixed with black; hind tibiæ with black bands; abdomen black, the base and anal tuft orange. Fore wing narrow, with the basal half orange, the terminal half black, the edge of the orange area acutely angled at vein 6, then curved to middle of inner margin. Hind wing orange, with broad terminal black band; vein 3 from close to angle of cell; 6, 7 on a long stalk, 8 from close to upper angle.

Hab. TENIMBER (*Doherty*), 1 ♂ type. *Exp.* 20 millim.

900. *Asura lydia*.

Bombyx lydia, Donovan. Ins. N. Holl. pl. 40. f. 3 (1805); Kirby, Cat. Het. p. 298.

Dysauxes mediastina, Hübner. Zutr. Ex. Schmett. iii. p. 27, ff. 505, 506 (1827).

Asura gaudens, Wlk. ii. 485 (1854).

Setina pectinata, Wllgrn. Wien. Ent. Mon. iv. p. 46 (1860).

Fuscous black; palpi, frons, tegulæ, and spots on shoulders orange; abdomen with the anal tuft and base of ventral surface orange. Fore wing with broad irregular subbasal orange band not reaching costa; an antemedial spot below costa, sometimes forming a triangular patch on costa; an elliptical or bar-shaped spot below

the cell; an elliptical medial patch from upper angle of cell to vein 1, sometimes with point above it below costa; a postmedial spot on costa and another on inner margin, usually more or less completely connected by a line; three large somewhat quadrate subterminal spots. Hind wing with the basal area orange, and a patch beyond the cell from below costa to vein 1, often with a point beyond it on costa.

Ab. 1. Hind wing with the patches more or less completely confluent, and the medial black band absent.

Hab. AUSTRALIA, type *gaudens*; N. S. WALES, Hunter R. (*Purser*), Sydney (*Mathew*); VICTORIA, Melbourne (*Lucas, Raynor*); S. AUSTRALIA (*Bakewell*). *Exp.* 22–26 millim. Type † *pectinata* in Mus. Stockholm.

901. *Asura bipars*. (Plate XXX. fig. 1.)

Stonia bipars, Wlk. xxxi. 187 (1865); Kirby, Cat. Het. p. 915.

Asura habrotis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 748 (1886); Kirby, Cat. Het. p. 299.

♂. Fuscous black; head and tegulæ yellow; palpi and antennæ blackish; patagia with yellow spots, metathorax with yellow patch; abdomen yellow, the anal tuft and slight lateral marks towards extremity blackish. Fore wing with subbasal orange triangular patch from middle of cell to inner margin; a broad medial yellow band formed by slight streaks above the cell, a wedge-shaped patch in cell, a small triangular spot above base of vein 2, and a quadrate patch on inner area; a small spot beyond the cell; a subterminal maculate band; the spot above vein 9 small and separate. Hind wing with broad orange-yellow medial band from costa to vein 1.

Ab. 1. *habrotis*. The markings deeper orange and on the wings much reduced. Fore wing with no medial spot beyond the cell and the spots above vein 2 and on inner area much reduced; the postmedial band reduced to a spot between veins 4 and 7 and two spots above inner margin; the band on hind wing reduced and bifid.

Hab. QUEENSLAND, Brisbane; N. S. WALES, Moreton Bay (*Diggles*), 1 ♂ type; TASMANIA. *Exp.* 30 millim. Type † *habrotis* in Coll. Meyrick.

902. *Asura cervicalis*. (Plate XXX. fig. 23.)

Asura cervicalis, Wlk. ii. 484 (1854); Kirby, Cat. Het. p. 299.

Fuscous black; frons, tegulæ, and throat orange; abdomen with dorsal and lateral orange stripes, the former not reaching base. Fore wing with triangular orange subbasal spot below the cell; an elongate spot in end of cell and somewhat quadrate spot below base of vein 2, sometimes with slight spot above vein 2 and streak above the cell; a trifid subterminal spot from below vein 5 to above 6, and another from above vein 3 to below 2, its upper part often nearly obsolete. Hind wing with irregular medial orange patch or band from below costa to vein 1, varying greatly in width.

Ab. 1. Wings with the orange markings small; fore wing with the spot in cell almost obsolete.

Hab. AUSTRALIA, Hardwicke Coll., 4 ♂, type; N. S. WALES, Sydney, 2 ♂ (*Mathew*); VICTORIA (*Raynor*), 1 ♂, 1 ♀; TASMANIA, Launceston (*J. J. Walker*), 2 ♂. *Exp.* 26–32 millim.

903. *Asura conferta*.

Pitane conferta, Wlk. ii. 533 (1854); Moore, Lep. Ceyl. ii. p. 66, pl. 104.

ff. 7a, b, c, d; Hmps. Moths Ind. ii. p. 106; Kirby, Cat. Het. p. 299.

Nepita anila, Moore, Lep. E. I. C. p. 302 (1859); Kirby, Cat. Het. p. 299.

Nepita signata, Wlk. xxxi. 240 (1864).

Nepita ægrotæ, Butl. Trans. Ent. Soc. 1877, p. 336; Kirby, Cat. Het. p. 299.

Nepita ochracea, Butl. Trans. Ent. Soc. 1877, p. 336; Kirby, Cat. Het. p. 299.

Nepita limbata, Butl. Trans. Ent. Soc. 1877, p. 336; Kirby, Cat. Het. p. 299.

Nepita conferta, var. *fusca*, Hmps. Ill. Het. ix. p. 84, pl. 153. f. 6.

Deep orange; antennæ black except at base; palpi, vertex of head, shoulders, patagia, thorax, and legs with black spots; abdomen dorsally black. Fore wing with subbasal black patches on costa and



Fig. 340.—*Asura conferta*, ♂. 1.
(From Moths Ind. vol. ii.)

below the cell, sometimes conjoined; antemedial and medial waved black bands, the former angled outwards in cell to join the latter, which is angled inwards; a discoidal spot; a waved postmedial band strongly bent outwards from below costa to vein 4; a subterminal irregularly dentate band emitting

spurs to termen at costa and veins 6 and 4 and bent outwards to tornus; cilia black. Hind wing orange, with discoidal point; a broad terminal black band with irregular inner edge.

Ab. 1. *ægrotæ*. Hind wing with the terminal band very broad and running up on inner area nearly to base.

Ab. 2. *anila*. The terminal band of hind wing rather narrower.

Ab. 3. Fore wing with the bands narrower.

(a) *ochracea*. Hind wing with the terminal band broad and running up on inner area to near base.

(b) *limbata*. Hind wing with the terminal band narrower.

Ab. 4. *fusca*. The orange areas entirely suffused with brown.

Hab. "N. INDIA," types *ægrotæ* and *limbata*; BOMBAY, type *anila*, (*Swinhoe*) 4 ♂, 2 ♀, Poona, 1 ♂; BELGAUM (*Watson*), 1 ♀; NILGIRIS (*Hampson*), 5 ♂, 1 ♀; COIMBATORE (*Wallhouse*), 1 ♂, 1 ♀ type *ochracea*; CEYLON (*Templeton*), 1 ♂ type and type *signata*, (*Green*) 5 ♂, type *fusca*. *Exp.* 24–34 millim.

Larva. Short, dilated at middle; black-brown; each somite with tufts of long black hair; some dorsal orange marks on the 1st somite forming a band with black spots on it; subdorsal spots on 6th somite and a dorsal series of points from 6th to terminal segment, which has an orange band.

Cocoon slight.

*904. *Asura erythrias*. (Plate XXX. fig. 9.)

Mittochrista erythrias, Holland, Psyche, vi. p. 400 (1893).

♂. Head orange; antennæ black; thorax and abdomen orange-

red, with ill-defined black markings; fore and mid tibiae with black patches at extremity. Fore wing orange-red; some subbasal black marks; three diffused spots before the antemedial line, which is angled outwards in cell, then oblique; a medial line angled inwards to join the antemedial line in cell, then bent outwards, dentate, and connected with the postmedial line above inner margin; a discoidal black point; the postmedial line dentate, strongly bent outwards below costa, then oblique; a subterminal series of points, those above veins 6 and 4 nearer the termen; cilia black. Hind wing thinly scaled, orange-red, with diffused terminal black band.

Hab. W. AFRICA, Ogové R., type ♂ in Coll. Holland. *Exp.* 16 millim.

SECT. II. Antennæ of male with moderate branches, of female ciliated.

A. Fore wing yellow.

- | | |
|--|----------------------|
| a. Fore wing with streak in cell and antemedial line forming a loop | <i>synestramena.</i> |
| b. Fore wing with subbasal patch and postmedial irregular band | <i>phæobasis.</i> |
| c. Fore wing with antemedial and medial waved lines..... | <i>flavia.</i> |
| d. Fore wing with antemedial and two medial series of points..... | <i>nubifascia.</i> |
| B. Fore wing yellowish white, with antemedial and two medial series of points..... | <i>melanoleuca.</i> |
| C. Fore wing grey-brown, strongly irrorated with black..... | <i>umbrifera.</i> |

905. *Asura synestramena*, n. sp. (Plate XXX. fig. 2.)

♂. Pale yellow; shoulders, patagia, and mesothorax with blackish spots. Fore wing with black streak in cell from base, with a downturned hook on discocellulars; the costa streaked with black to the antemedial line, which forms a large round complete loop below end of cell and on inner margin is retracted towards base; the inner margin streaked with black from before middle to the postmedial line, which is bent inwards to costa and outwards to tornus, a series of short streaks on the veins beyond it, forked on veins 7, 8; the costa towards apex and termen black; cilia fuscous. Hind wing with some fuscous on termen from apex to vein 2, forming somewhat dentate marks on the veins.

Hab. BORNEO, Sandakan (*Pryer*), 1 ♂ type. *Exp.* 20 millim.

906. *Asura phæobasis*, n. sp. (Plate XXX. fig. 3.)

♂. Orange-yellow; antennæ with the branches fuscous; fore tibiae banded with fuscous. Fore wing with fuscous subbasal patch from costa to above inner margin, its outer edge curved and somewhat sinuous; a postmedial band narrowing to costa, angled outwards on veins 6 and 4 and inwards in submedian fold. Hind wing with pale fuscous subterminal band expanding towards costa and tornus, attenuate at middle.

Hab. LOUISIADES, St. Aignan (*Meek*), 1 ♂, 1 ♀ type. *Exp.* 20 millim.

907. *Asura flavia*, n. sp. (Plate XXX. fig. 7.)

♂. Very pale yellow; fore tibiae banded with black; tarsi black

at extremities; abdomen white, the anal tuft pale yellow. Fore wing with the costal edge black towards base; a subbasal black point; the antemedial line oblique from costa to median nervure, where it is angled and connected by a streak in submedian fold with the sinuous medial line which is conjoined to the small discoidal lunule; the postmedial line minutely waved and excurved from below costa to submedian fold; a diffused minutely dentate subterminal line emitting short streaks on veins 6 and 4.

Hab. S.W. N. GUINEA, Kapaur (*Doherty*), 2 ♂, type; QUEENSLAND, Cooktown. *Exp.* 18 millim.

908. *Asura nubifascia*.

Barsine nubifascia, Wlk. xxxi. 251 (1864); Butl. Ill. Het. v. p. 38, pl. 86. f. 11; Hmps. Moths Ind. ii. p. 119; Kirby, Cat. Het. p. 305.

Barsine punctifascia, Wlk. Char. Lep. Het. p. 9 (1869).

Lyclene simplicifascia, Elwes, P. Z. S. 1890, p. 389, pl. 32. f. 19; Kirby, Cat. Het. p. 305.

Pale yellow; fore legs marked with fuscous; abdomen whitish.

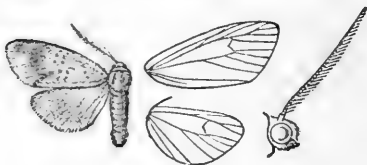


Fig. 341.—*Asura nubifascia*, ♂. $\frac{1}{2}$.

Fore wing with subbasal black point; the costal edge black towards base; an antemedial series of black points curved below costa and slightly angled inwards in submedian fold; a double medial series of points excurved below costa; a postmedial diffused

fuscous band, with darker streaks on the veins, its inner edge angled outwards at middle, its outer edge below costa, at vein 4, and on inner margin. Hind wing yellowish white.

Ab. 1. *simplicifascia*. Fore wing with the two medial series of points further apart; the postmedial line with hardly a trace of markings beyond it.

Ab. 2. Fore wing with the markings almost obsolete.

Hab. N.W. HIMALAYAS, Dalhousie, 9 ♀, Murree (*Harford*), 1 ♂; TIBET, Yatung (*Hobson*), 9 ♀; SIKHIM, type, (*Atkinson*, *Lidderdale*, *Elwes*) 4 ♂, 4 ♀. *Exp.* 34–42 millim. Type† *simplicifascia* in Coll. Elwes.

909. *Asura melanoleuca*. (Plate XXX. fig. 8.)

Mittochrista melanoleuca, Hmps. Moths Ind. ii. p. 120 (1894).

♂. Yellowish white; palpi towards tips, and antennæ brown; patagia, pro- meso- and metathorax spotted with black; tarsi ringed with fuscous; abdomen with blackish band towards extremity and with some yellowish on sides. Fore wing with diffused blackish patch on basal part of costal area; a curved antemedial series of four spots; a streak above medial part of inner margin; two medial series of spots excurved below costa and somewhat coalescing in cell; a broad postmedial black band with sinuous inner edge and very irregular outer edge running out to apex and tornus, and emitting teeth to near termen on veins 6 and 4.

Hind wing with fuscous spots in and below lower end of cell; traces of postmedial dark lines and subterminal spots, which are more distinct on underside.

Hab. SIKHIM (*Pilcher*), 1 ♂, 1 ♀, (*Möller*) type† ♂ in Coll. Elwes. *Exp.* 36 millim.

910. *Asura umbrifera*, n. sp. (Plate XXX. fig. 14.)

Pale brown; head, thorax, abdomen, and fore wing strongly irrorated with fuscous. Fore wing with rather obscure antemedial, medial, and postmedial dark lines, the first two angled in cell, the last just beyond lower angle; a diffused irregular very ill-defined subterminal band. Hind wing pale grey-brown, with traces of ante- and postmedial dark lines.

Hab. TIBET, Yatung (*Hobson*), 2 ♂, 4 ♀, type. *Exp.*, ♂ 30, ♀ 36 millim.

SECT. III. Antennæ of male with cilia and bristles.

- A. Fore wing of male with glandular swelling on costa beyond middle; the median nervure bent up to subcostal nervure before end of cell, which then expands again; vein 5 absent; 6, 7, and 8, 9 stalked from the looped end of cell.

911. *Asura lutara*.

Lyclene lutara, Moore, Cat. Lep. E. I. C. p. 300 (1859); Kirby, Cat. Het. p. 310.

Setina dividata, Snell. Veth's Midden-Sumatra, Lep. p. 37 (1880); Kirby, Cat. Het. p. 310.

♂. Yellow; mesothorax with black spots; fore tibiæ banded with black; abdomen with the terminal segments black. Fore wing with subbasal black point; an antemedial spot below the costa and two below the cell; the antemedial line angled outwards in cell and submedian fold, then oblique; the medial line incurved and almost or quite touching the antemedial line in cell; a spot in the loop at end of cell; the postmedial line very highly and irregularly dentate, running out to points at veins 6 and 3 and up to subcostal nervure at vein 4, then oblique; a series of spots beyond it, the spots at veins 7, 6, and 3 nearer termen.



Fig. 342.—*Asura lutara*, ♂. $\frac{1}{2}$.

♀. Fore wing with the discoidal spot in normal place; the postmedial line not bent up to costa at vein 4; abdomen not black at extremity.

Hab. BURMA, Rangoon (*Scott*), 1 ♀; PERAK; BORNEO; SUMATRA, type† *dividata* in Coll. Snellen; JAVA (*Horsfield*), 3 ♂, 4 ♀, type. *Exp.*, ♂ 20, ♀ 26 millim.

Larva. Moore, Lep. E. I. C. pl. xiii. ff. 12, 12 a.

Dark rufous brown; head yellowish above. Food-plant, *Solanum indicum* in January.

Cocoon dark rufous brown.

B. Fore wing of male with the cell very narrow ; vein 5 from upper angle of cell ; 6 stalked with 7, 8, 9, and often also in female.

- a. Fore wing with subterminal series of spots *metamelas*.
 b. Fore wing without subterminal series of spots *dasara*.

912. *Asura metamelas*.

Lyclene semifascia, var. *metamelas*, Hmps. Ill. Het. ix. p. 84, pl. 153. f. 11 (1893).

♂. Yellow ; shoulders with black points ; tips of patagia fuscous ; fore tibiae and tarsi banded with black ; abdomen with the terminal half clothed with black hair. Fore wing with black point at base ; the costa black towards base ; an oblique subbasal line interrupted in cell ; the antemedial line slightly angled below costa, then oblique and interrupted in submedian fold ; a medial spot below costa, and line from cell to inner margin, incurved below vein 3 and anastomosing with the antemedial line ; a postmedial point below costa representing the displaced discoidal spot ; the postmedial line highly and irregularly dentate, bent up to the subcostal nervure at vein 4 ; a series of spots beyond it from costa to vein 3, the spot at vein 4 displaced inwards. Hind wing with some fuscous marks on termen towards apex.

♀. Abdomen without black ; fore wing with the markings finer ; the subbasal line broken up into spots, the medial line not connected with the antemedial line ; the discal point prominent ; the postmedial line less irregular.

Hab. CEYLON, Pundaloya (*Green*), 1 ♂ type, ♀ in Coll. *Green*.
Exp. 22 millim.

Subsp. 1. Fore wing with the postmedial line obscured by a large area of fuscous suffusion.

Hab. S. INDIA, Belgaum (*Watson*), 2 ♂, Nilgiris (*Hampson*), 1 ♂, 2 ♀.

913. *Asura dasara*.

Setina dasara, Moore, Lep. E. I. C. p. 303 (1859) ; Butl. Ill. Het. vii. p. 32, pl. 122. ff. 7, 8 ; Hmps. Moths Ind. ii. p. 115 ; Kirby, Cat. Het. p. 357.

Barsine chromatica, Swinh. Trans. Ent. Soc. 1891, p. 135 (♀).

♂. Yellow ; shoulders and mesothorax with black points ; abdomen tinged with fuscous towards extremity or wholly fuscous. Fore wing with subbasal black point ; the costal edge black towards base ; an antemedial curved fuscous band ; an obscure discoidal spot ; a postmedial band formed by elongate fuscous patches in the interspaces from below

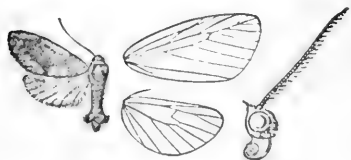


Fig. 343.—*Asura dasara*, ♂. 1.

the costa, very obliquely curved so as to nearly or quite join the antemedial band below the cell, then excurved again. Hind wing pale yellow.

♀. Fore wing with the ante- and postmedial bands usually reduced to dentate lines and well separated; a prominent discoidal spot.

Hab. N.W. HIMALAYAS, Kangra (*Hocking*), 5 ♂, 1 ♀; SIKHIM (*Dudgeon*), 2 ♀; ASSAM, Khásis, 1 ♂; NILGIRIS (*Lindsay, Hampson*), 1 ♂, 1 ♀, type *chromatica*; SUMATRA (*Forbes*), 1 ♂; JAVA (*Horsfield*), 1 ♂ type. *Exp.* ♂ 26, ♀ 30 millim.

C. Fore wing of male with the costa turned over on upper side and fringed with hair for a short distance beyond middle; the discocellulars bent upward to subcostal nervure between veins 5 and 6.

- a. Fore wing with the whole discal area occupied by a fuscous patch *phæoplagia*.
 b. Fore wing without fuscous patch *cuneifera*.

914. *Asura phæoplagia*, n. sp. (Plate XXX. fig. 4.)

♂. Head and thorax yellow; shoulders and mesothorax with black spots; extremities of tibiæ and tarsi black; abdomen blackish, grey towards base. Fore wing yellow, with a large fuscous patch occupying the greater part of wing, leaving the base yellow to the antemedial line, which is retracted to costa; a subbasal black spot; the costal edge black towards base; a fuscous spot below the cell before the antemedial line; yellow patches on middle of costa and inner margin and on costa towards apex; the termen yellow, with projections from the fuscous patch at veins 6 and 4. Hind wing pale fuscous, yellowish towards base and inner margin; the cilia yellow.

Hab. JAVA, Mt. Arjuno (*Doherty*), 3 ♂, type. *Exp.* 18 millim.

915. *Asura cuneifera*.

Lycene cuneifera, Wlk. Journ. Linn. Soc., Zool. vi. p. 113 (1862); Swinh. Cat. Het. Mus. Oxon. p. 102; Kirby, Cat. Het. p. 310.

♂. Yellow; vertex of head, tegulæ, and mesothorax with fuscous spots; pectus and abdomen whitish, the latter with the terminal half clothed with black hair. Fore wing with fuscous points at base of costa and cell; short subbasal streaks on costa and in and below cell; the antemedial line angled in cell, then oblique; the medial line oblique, slightly angled on subcostal nervure, touching



Fig. 344.—*Asura cuneifera*, ♂. ¾.

the antemedial line in cell, then angled acutely outwards on median nervure; a very highly and irregularly dentate postmedial line, strongly bent outwards below costa, then oblique; a series of points beyond it, the point at vein 4 displaced towards termen; cilia brownish at extremities. Hind wing yellowish white.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂. *Exp.* 20 millim. Type in Mus. Oxon.

D. (*Lyclele*). Fore wing of male with the cell normal.

- a. Fore wing with very highly and irregularly dentate postmedial line.
 - a¹. Fore wing white, with the terminal part of costa and termen crimson *perihæmia.*
 - b¹. Fore wing yellowish, with the costa and termen tinged with crimson; a terminal black line *pudibunda.*
 - c¹. Fore wing without crimson on costa or termen.
 - a². Hind wing orange-yellow, with well-defined terminal black band.
 - a³. Fore wing with the medial line angled in submedian interspace, and not dentate *cemelæna.*
 - b³. Fore wing with the medial line dentate *virida.*
 - b². Hind wing orange-yellow, without terminal band... *fulvia.*
 - c². Hind wing pale yellow.
 - a³. Fore wing with the cilia black.
 - a⁴. Fore wing with the medial line minutely dentate and bent outwards below the cell ... *craigi.*
 - b⁴. Fore wing with the medial line sinuous and oblique *cuncigera.*
 - b³. Fore wing with the cilia yellow.
 - a⁴. Fore wing with terminal series of black points *undulosa.*
 - b⁴. Fore wing without terminal series of points. *obsoleta.*
- b. Fore wing without highly dentate postmedial line.
 - a¹. Fore wing not white with brown markings.
 - a². Fore wing with postmedial line.
 - a³. Fore wing deep red, with broad black lines..... *avernalis.*
 - b³. Fore wing yellow, with medial and terminal crimson bands with dark lines on them *suavis.*
 - c³. Fore wing crimson, with broad fuscous lines.
 - a⁴. Fore wing with yellow patches at base and end of cell *reticulata.*
 - b⁴. Fore wing with white patches at base and end of cell *phryctopa.*
 - d³. Fore wing scarlet, with the lines finer *sexualis.*
 - c³. Fore wing orange or yellow, sometimes slightly tinged with crimson
 - a⁴. Fore wing with medial line.
 - a⁵. Fore wing with the medial and postmedial lines connected by a streak at upper angle of cell.
 - a⁶. Fore wing brown, the ground-colour only appearing as subbasal, antemedial, and medial spots *agraphia.*
 - b⁶. Fore wing with the ground-colour occupying the greater part of wing.
 - a⁷. Fore wing with the medial line not angled inwards in cell.
 - a⁸. Fore wing with the terminal part of costa and termen crimson *pyraula.*
 - b⁸. Fore wing without crimson on costa and termen *quadrilineata.*
 - b⁷. Fore wing with the medial line very strongly angled inwards in cell *cuprepioides.*
 - b⁵. Fore wing with the medial and postmedial lines not connected by a streak at upper angle of cell.
 - a⁸. Fore wing with the cilia black.
 - a⁹. Fore wing with the postmedial line strongly bent outwards beyond the cell *sogenaria.*

- b⁷. Fore wing with the postmedial line more regularly curved.
 a⁸. Fore wing with discoidal spot *nigriciliata*,
 b⁸. Fore wing without discoidal spot.
 a⁹. Hind wing with terminal black band *structa*,
 b⁹. Hind wing without terminal black band *ruenca*,
 b⁶. Fore wing with the cilia yellow.
 a⁷. Fore wing with terminal black line... *conjunctana*,
 b⁷. Fore wing without terminal black line.
 a⁸. Hind wing with subterminal fuscous band *distributa*,
 b⁸. Hind wing without subterminal band.
 a⁹. Fore wing with the antemedial line double.
 a¹⁰. Fore wing pale ochreous, the disk tinged with pink *numida*,
 b¹⁰. Fore wing orange-yellow, with slight pink tinge *obliterata*,
 b⁹. Fore wing with the antemedial line single.
 a¹⁰. Fore wing with the interspaces streaked with crimson *flavivenosa*,
 b¹⁰. Fore wing with the dark markings edged with crimson.
 a¹¹. Fore wing with the antemedial line curved *senara*,
 b¹¹. Fore wing with the antemedial line oblique *perpusilla*,
 c¹⁰. Fore wing without crimson tinge.
 a¹¹. Fore wing with the antemedial line punctiform *semifascia*,
 b¹¹. Fore wing with the antemedial line not punctiform.
 a¹². Fore wing with antemedial line angled outwards in cell.
 a¹³. Fore wing with the medial line outwardly oblique below cell, and joining the postmedial line at inner margin *flavida*,
 b¹³. Fore wing with the medial line inwardly oblique below cell *crocolia*,
 b¹². Fore wing with the antemedial line angled inwards in cell and outwards in submedian fold *fulguritis*,
 b⁴. Fore wing without medial line.
 a⁵. Fore wing with the postmedial line double. *birivula*,
 b⁵. Fore wing with the postmedial line single.
 a⁶. Fore wing with the postmedial line strongly excurved beyond the cell ... *asaphes*,
 b⁶. Fore wing with the postmedial line oblique, dentate beyond the cell *ectophaea*,
 b². Fore wing with postmedial series of spots or streaks, often conjoined into an irregular band.
 a³. Hind wing black or fuscous; fore wing sometimes uniform black *varians*,

- b*⁵. Hind wing yellowish or pinkish.
- a*⁴. Fore wing with prominent series of medial spots; hind wing with fuscous terminal band *umbrosa*.
- b*⁴. Fore wing with medial line.
- a*⁵. Fore wing with antemedial line or diffused band.
- a*⁶. Fore wing with the medial line strongly excurved below costa, then confluent with the antemedial band *nebulosa*.
- b*⁶. Fore wing with medial line more or less straight and oblique.
- a*⁷. Fore wing with the whole terminal area fuscous, confluent at middle with the medial line *fuscalis*.
- b*⁷. Fore wing with the termen yellow or pink.
- a*⁸. Fore wing with series of elongate postmedial streaks, often conjoined into a broad band *inconspicua*.
- b*⁸. Fore wing with much narrower postmedial band composed of short confluent streaks.
- a*⁹. Fore wing with the medial line angled inwards to the antemedial band in cell *hyporhoda*.
- b*⁹. Fore wing with the medial line not angled inwards.
- a*¹⁰. Fore wing with the postmedial band not confluent with the medial line at inner margin . *rubricosa*.
- b*¹⁰. Fore wing with the postmedial band confluent with the medial line at inner margin *congerens*.
- c*⁸. Fore wing with postmedial series of short well-separated streaks or points.
- a*⁹. Fore wing strongly tinged with crimson, with punctiform terminal line *creatina*.
- b*⁹. Fore wing dull semihyaline, yellowish, with terminal series of points *floccosa*.
- c*⁹. Fore wing pale yellow; hind wing with oblique medial line *ruptifuscia*.
- b*⁵. Fore wing with antemedial series of well-separated points.
- a*⁶. Fore wing with broad diffused medial band *ila*.
- b*⁶. Fore wing with narrow medial line.
- a*⁷. Fore wing with the postmedial streaks arising from the medial line below vein 4 *parallelina*.
- b*⁷. Fore wing with the postmedial streaks or points well separated from the medial line.
- a*⁸. Fore wing with the medial line slightly incurved at median nervure.
- a*⁹. Fore wing with the medial line angled outwards at vein 1 *atritermina*.

- b*⁹. Fore wing with the medial line not angled outwards at vein 1.
*a*¹⁰. Fore wing with the medial line excurved below the cell *andanana*.
*b*¹⁰. Fore wing with the medial line not excurved below the cell... *strigipennis*.
*b*⁸. Fore wing with medial line straight or slightly excurved at middle..... *arcuata*.
*c*¹. Fore wing without medial line.
*a*⁵. Fore wing with broad postmedial band, with irregular outer edge.
*a*⁶. Fore wing with ante- and postmedial bands confluent at inner margin *nubilalis*.
*b*⁶. Fore wing with ante- and postmedial bands well separated at inner margin... *humilis*.
*b*¹. Fore wing with postmedial series of well-separated streaks.
*a*⁶. Colour crimson *nigrivena*
*b*⁶. Colour ochreous *biseriata*.
*c*⁵. Fore wing with postmedial series of five points *disticha*.
*c*². Fore wing without postmedial line, streaks, or series of points.
*a*³. Fore wing with discoidal black spot.
*a*¹. Fore wing flesh-colour or orange-red.
*a*⁵. Fore wing with subterminal series of points. *eos*.
*b*⁵. Fore wing without subterminal series of points.
*a*⁶. Fore wing with postmedial black spot above inner margin *carnea*.
*b*¹. Fore wing without postmedial black spot above inner margin *unipuncta*.
*b*¹. Fore wing deep orange.
*a*⁵. Fore wing with the costa towards apex and termen black *cylletona*.
*b*⁵. Fore wing with the costa towards apex and termen not black.
*a*⁶. Fore wing with complete subterminal series of black spots *infumata*.
*b*⁶. Fore wing with the subterminal spots reduced to four or absent..... *discisigna*.
*c*⁴. Fore wing pale ochreous yellow.
*a*¹. Fore wing with subterminal series of spots.
*a*⁶. Fore wing with terminal series of points. *solita*.
*b*¹. Fore wing with two points on middle of termen *sexpuncta*.
*c*⁶. Fore wing without terminal points.
*a*⁷. Fore wing with antemedial series of points *dharma*.
*b*⁷. Fore wing with two antemedial points. *modesta*.
*c*⁷. Fore wing without antemedial points. *megala*.
*b*⁵. Fore wing without subterminal series of spots. *calamaria*.
*d*¹. Fore wing grey ... *griseata*.
*b*³. Fore wing without discoidal black spot.
*a*¹. Fore wing crimson *anomala*.
*b*¹. Fore wing greyish, with crimson streaks on inner margin and costa and antemedial and medial dark lines *rubrimargo*.
*c*¹. Fore wing greyish, with crimson streaks in the interspaces and black streaks on the veins *esmia*.

- d*⁴. Fore wing uniform pale brown *uniformis*.
*c*¹. Fore wing yellow.
 *a*¹. Fore wing with the underside suffused
 with fuscous, except on margins *atrifusa*.
 *b*¹. Fore wing with the underside not suffused
 with fuscous *uniformeola*.
*b*¹. Fore wing white, with brown markings.
 *a*². Fore wing with the postmedial area occupied by
 a broad brown band, with curved series of white
 points on it *frigida*.
 *b*². Fore wing with narrow postmedial band or line.
 *a*³. Fore wing with round blackish spot at end of
 cell *hilaris*.
 *b*³. Fore wing with elongate brown spot at end of
 cell *bizonoides*.

916. *Asura perihæmia*, n. sp. (Plate XXX. fig. 6.)

♀. Head and thorax white; patagia and abdomen pale crimson. Fore wing white, with a crimson fascia from the antemedial line below costa, becoming costal after middle; the terminal area crimson; three short black streaks on basal area; the costal edge black to the curved antemedial line; a nearly straight medial line; a short streak in end of cell and a discoidal spot; the postmedial line very strongly bent outwards below costa, then oblique, highly and irregularly dentate and with a curved series of almost conjoined spots beyond it. Hind wing pale crimson.

Hab. JAVA (*Horsfield*), 1 ♀ type. *Exp.* 16 millim.

*917. *Asura pudibunda*.

Setina pudibunda, Snell. Veth's Midden-Sumatra, Lep. p. 38, pl. 3. f. 16 (1880); Kirby, Cat. Het. p. 308.

Head, thorax, and abdomen ochreous; vertex of head and patagia with black points; thorax irrorated with black scales; tibiæ and tarsal joints banded with black. Fore wing ochreous, suffused with pink on costal area beyond middle and on postmedial area; the basal area with patches of black scales and subbasal black point; an antemedial black line excurved from below costa to vein 1; a medial line obtusely angled in cell; a discoidal spot; a postmedial line running out below costa to a very elongate tooth on vein 6, retracted to lower end of cell, then with a long tooth followed by two shorter teeth; a curved subterminal series of black points, those on veins 5 and 7 displaced inwards, and oblique below vein 4; a fine black line on costa towards apex and on termen; cilia irrorated with black except at tips. Hind wing tinged with pink; the underside with blackish postmedial spots on costa beyond middle and below apex.

Hab. ASSAM, Khasis, 1 ♂ in Coll. Elwes; SUMATRA, type † ♀ in Coll. Snellen. *Exp.* 20 millim.

918. *Asura ecmelæna*, n. sp. (Plate XXX. fig. 24.)

♀. Orange-yellow; vertex of head, tegulæ, patagia, and mesothorax spotted with black; tibiæ and tarsi mostly fuscous; abdomen

slightly banded with black. Fore wing with black spot at base; the costal edge black towards base; two obliquely placed subbasal spots below the cell; the antemedial line bent outwards in cell, interrupted and retracted at median nervure, then slightly curved; the medial line bent outwards below costa, then oblique and angled inwards in submedian fold and outwardly oblique to inner margin; a prominent discoidal spot; the postmedial line arising close to the medial line, strongly bent outwards below costa, then oblique, very irregularly dentate and bent outwards above inner margin, a curved series of spots beyond it, the spot on vein 5 minute and nearer the line; the costa beyond the postmedial line, termen and cilia black. Hind wing with terminal black band.

Hab. SANGIR (*Doherty*), 1 ♀ type. *Exp.* 22 millim.

919. *Asura vivida*. (Plate XXX. fig. 26.)

Barsine vivida, Wlk. xxxi. 254 (1864); Swinh. Cat. Het. Mus. Oxon. p. 108; Kirby, Cat. Het. p. 306.

♂. Orange; vertex of head, tegulæ, shoulders, patagia, and mesothorax spotted with black; palpi and fore legs tinged with crimson; end of tibiæ and tarsi marked with black. Fore wing with black point and three dentate marks at base; antemedial and medial irregularly dentate lines very oblique towards costa; streaks on the veins beyond the cell connected with the dentate postmedial line, which is strongly bent outwards from below costa to vein 2; a curved subterminal series of rather elongate spots, those at veins 4 and 6 larger; cilia black. Hind wing yellow, with the terminal area fuscous.

Hab. CELEBES, Menado (*Wallace*), 1 ♂ type † in Mus. Oxon.; BATCHIAN (*Doherty*), 1 ♂. *Exp.* 24 millim.

920. *Asura fulvia*, n. sp. (Plate XXX. fig. 25.)

♂. Deep orange-yellow. Fore wing with the costal edge black towards base; a subbasal black spot; two curved and somewhat sinuous antemedial series of points; an irregularly dentate medial line, angled inwards in cell to the antemedial points; a discoidal point; the postmedial line arising close to the medial line, strongly bent outwards below costa, then highly and irregularly dentate, incurved below vein 3; a subterminal series of points, slightly incurved at vein 5. Underside of fore wing tinged with crimson.

Hab. NATAL, Verulam (*Spiller*), 1 ♂ type. *Exp.* 20 millim.

*921. *Asura craigi*. (Plate XXX. fig. 29.)

Mitochrista craigii, Holland, *Psyche*, vi. p. 411 (1893).

♂. Orange-yellow; vertex of head, tegulæ, patagia, and meta-thorax with black spots; extremity of tibiæ and tarsi black. Fore wing with the costa black towards base; a subbasal black spot in cell; a series of five black points before the antemedial line which is excurred in cell, angled inwards below it and outwards on vein 1; a medial line angled inwards in cell to the antemedial line, then

bent outwards and minutely dentate; an oblique discoidal striga; a highly and irregularly dentate postmedial line strongly bent outwards below costa and incurved below the cell; a subterminal series of points, those above veins 4 and 6 nearer the termen; the ante- and postmedial lines slightly outlined with crimson; cilia black. Hind wing with slight traces of a subterminal line towards costa; two points on termen towards apex.

Hab. W. AFRICA, Ogové R., type † ♂ in Coll. Holland. *Exp.* 18 millim.

922. *Asura cuneigera*. (Plate XXX. fig. 27.)

Lycelene cuneigera, Wlk. Journ. Linn. Soc., Zool. vi. p. 113 (1862); Kirby, Cat. Het. p. 310.

Yellow; shoulders with black points; fore tibiæ and tarsi banded with black; abdomen greyish, the terminal half in male clothed with blackish hair. Fore wing with black points at base of costa and cell; the costal edge streaked with black towards base; an oblique series of three antemedial spots; the antemedial line minutely waved, acutely angled in cell, then oblique; an oblique medial line, slightly angled on subcostal nervure and incurved below submedian fold; a discoidal point; the postmedial line arising from the same point as the medial line, strongly bent outwards below costa, then oblique and highly and irregularly dentate; a series of spots beyond it, those on veins 6 and 4 displaced towards termen; cilia fuscous. Hind wing yellowish white, the terminal area tinged with fuscous.

Hab. BORNEO, Sarawak (Wallace), 1 ♂, 2 ♀ type; SUMATRA. *Exp.*, ♂ 16, ♀ 20 millim.

923. *Asura undulosa*.

Cytlene undulosa, Wlk. ii. 545 (1854); Hmps. Moths Ind. ii. p. 108; Kirby, Cat. Het. p. 310.

Mittochrista straminea, Wlk. vii. 1685 (1856); Swinh. Cat. Het. Mus. Oxon. p. 105; Kirby, Cat. Het. p. 310.

Sesapa excurrens, Wlk. xxxi. 255 (1864); Kirby, Cat. Het. p. 310.

Sesapa decurrens, Wlk. xxxi. 255 (1864); Kirby, Cat. Het. p. 310.

Pale yellow: vertex of head, shoulders, patagia, and mesothorax with black points; abdomen greyish white, often blackish at extremity in male. Fore wing with black points at base of costa and median nervure; the costal edge black towards base; a subbasal series of black points, those in and above cell often becoming short streaks, the one below the cell oblique and nearer the base; an antemedial line strongly excurved from below costa to median nervure, angled inwards in submedian fold; a medial line which is either straight or slightly angled outwards on median nervure; a discoidal spot; the postmedial line very strongly bent outwards below costa, then oblique and very



Fig. 345.—*Asura undulosa*, ♂. 1.
(From Moths Ind. vol. ii.)

highly and irregularly dentate; subterminal and terminal series of black points, the former strongly bent inwards to costa. Hind wing yellowish white.

The type form is an aberration with the fore wing whitish; hind wing with fuscous points on termen below apex and on veins 3 and 4.—SIKHEM, Bhután, Moulmein.

Ab. 2. Fore wing with the medial line absent.—Kangra.

Hab. N. W. HIMALAYAS, Simla (*Harford*), 1 ♂, Kangra (*Hocking*), 3 ♂, 3 ♀; SIKHEM (*Atkinson*, *Dudgeon*), 4 ♂, 6 ♀, type *excurrens*; BHUTÁN (*Dudgeon*), 1 ♂; BURMA, Rangoon (*Scott*), 1 ♀, Moulmein (*Clerk*), 1 ♂ type. *Exp.*, ♂ 20–26, ♀ 26–30 millim. Type † *straminea* in Mus. Oxon.

924. *Asura obsoleta*.

Lyclene obsoleta, Moore, P. Z. S. 1878, p. 32, pl. 3. f. 7; Hmps. Moths Ind. ii. p. 109; Kirby, Cat. Het. p. 310.

Lyclene assamica, Moore, P. Z. S. 1878, p. 33, pl. 3. f. 8; Kirby, Cat. Het. p. 310.

♂. Yellow; patagia and metathorax with black points; fore tibiae and tarsi banded with black. Fore wing with subbasal black point; a small wedge-shaped subbasal spot below costa and two below the cell followed by the curved antemedial series of spots; a medial point below costa and line from subcostal nervure to inner margin excurved below cell, and angled inwards in submedian fold; a discoidal point; a highly and irregularly dentate postmedial line strongly bent outwards below costa and to inner margin, and with longer teeth on veins 7, 6, and 4; a series of spots beyond it with the spot on vein 4 displaced towards termen.

Hab. SIKHEM (*Dudgeon*), 1 ♂; PULO LAUT (*Doherty*), 1 ♂. *Exp.* 22 millim. Type † and type † *assamica* in Coll. Staudinger.

925. *Asura avernalis*. (Plate XXX. fig. 13.)

Mittochrista avernalis, Butl. A. M. N. H. (5) xix. p. 219 (1887); Kirby, Cat. Het. p. 309.

♀. Head and thorax scarlet; tegulae, patagia, mesothorax, and tibiae with fuscous spots; abdomen fuscous with slight crimson dorsal marks, the terminal segments and ventral surface scarlet. Fore wing, scarlet; a curved fuscous antemedial band bent round on costa to base, where it encloses a scarlet point; an irregular medial oblique band, its outer edge produced below the cell to the postmedial band, which is excurved at middle; an irregular subterminal line expanding at costa and connected with termen by streaks below apex and at middle. Hind wing crimson with the inner margin narrowly pale crimson; veins 4, 5 stalked.

Hab. SOLOMON Is., Alu (*Woodford*), 1 ♀ type. *Exp.* 36 millim.

926. *Asura suavis*. (Plate XXX. fig. 28.)

Calligenia suavis, Pag. Jahrb. Nass. Ver. xxxix. p. 126 (1886); Kirby, Cat. Het. p. 307.

♂. Pale yellow; meso- and metathorax with patches of scarlet; abdomen with ventral black patch towards extremity. Fore wing

with short oblique scarlet subbasal band from costa, joined by a streak below costa to the antemedial band, which is oblique to submedian fold, where it is acutely angled and does not reach inner margin; a medial band with irregular edges and fuscous maculate line on it, the band strongly angled below the cell and connected by an oblique streak with the terminal band, then incurved; a broad terminal band with dark line close to its inner edge, excurved to submedian fold, where it is angled inwards; a subterminal series of fuscous spots, the spot above vein 5 extending to termen; cilia fuscous. Hind wing with the termen slightly tinged with red; cilia fuscous from apex to vein 2.

Hab. ARU; N. GUINEA, Kapaur (*Doherty*), 1 ♂. *Exp.* 22 millim.

927. *Asura reticulata*.

Cyme reticulata, Feld. Sitz. Akad. Wien, xliii. p. 36 (1861); Kirby, Cat. Het. p. 309.

Barsine placens, Wlk. xxxi. 251 (1864); Swinh. Cat. Het. Mus. Oxon. p. 109, pl. iii. f. 15; Kirby, Cat. Het. p. 309.

Calligenia cyclota, Meyr. Pr. Linn. Soc. N. S. W. (2) i. p. 705 (1886); Kirby, Cat. Het. p. 309.

Barsine intrita, Swinh. Cat. Het. Mus. Oxon. p. 108, pl. iii. f. 23 (1892).

Head, thorax, and abdomen orange tinged with crimson; palpi at sides, antennæ, a streak on vertex of head, edges of tegulæ and patagia, marks on thorax, and bands on tibiæ fuscous. Fore wing fuscous; a yellow patch at base not reaching costa or inner margin; large yellow spots on costa before and after middle and in end of cell; crimson-tinged spots on inner margin before and after middle, the former with a small spot above it; a subterminal series of small dentate marks more strongly tinged with crimson and a terminal series of spots, those above veins 3 and 6 smaller. Hind wing yellow, tinged with crimson towards termen; cilia fuscous towards apex.

Fore wing sometimes with veins 11 and 12 only connected by a bar; hind wing with veins 4 and 5 stalked.

Hab. AMBOINA, type ♀ in Coll. Rothschild; CERAM, 1 ♂, type *placens*; TIMOR, 1 ♀; BATCHIAN; ARU (*Wallace*); TROBRIAND Is., Kiriwini (*Meek*), 2 ♂; LOUISIADES, St. Aignan (*Meek*), 1 ♂, 1 ♀; QUEENSLAND. *Exp.*, ♂ 26, ♀ 30 millim.

*928. *Asura phryctopa*. (Plate XXX. fig. 18.)

Calligenia phryctopa, Meyr. Trans. Ent. Soc. 1889, p. 462; Kirby, Cat. Het. p. 309.

♂. Head and thorax yellow suffused with crimson; fuscous spots on vertex of head, tegulæ, patagia, and mesothorax; abdomen crimson, greyish towards base, a black patch on ventral surface before the claspers. Fore wing crimson suffused with fuscous; the antemedial, medial, and postmedial lines diffused and indistinct; a white subbasal patch from below costa to vein 1 with some bright crimson on its edges, a similar patch in and just beyond and below

end of cell; the veins of terminal area streaked with fuscous; cilia fuscous black. Hind wing yellowish, the inner and terminal areas suffused with crimson.

Hab. N. GUINEA (*Sayer*), type † ♂ in Coll. Meyrick. *Exp.* 30 millim.

929. *Asura sexualis*. (Plate XXX. fig. 11.)

Cyme sexualis, Feld. Sitz. Akad. Wien, xliii. p. 36 (1861); Kirby, Cat. Het. p. 300.

♀. Scarlet. Fore wing with fuscous points at base of costa and cell; the antemedial line strongly excurved in cell, angled inwards in submedian fold and not reaching below vein 1; a rather broad medial line, excurved from below costa to submedian fold and angled inwards on vein 1; the postmedial line oblique from below costa to vein 4, where it is angled, then incurved; a very indistinct diffused irregular subterminal band from costa to vein 2; the costa towards apex and cilia blackish. Hind wing yellow tinged with scarlet, deeper towards apex.

Hab. AMBOINA, type † ♀ in Coll. Rothschild; ARU; LOUISIADES, St. Aignan (*Meek*), 1 ♀. *Exp.* 32 millim.

930. *Asura agraphia*, n. sp. (Plate XXX. fig. 30.)

♀. Head yellow; palpi, antennæ, and a spot on vertex brown; tegulæ yellow, brown at base; patagia yellow, brown at base and on outer side; thorax and legs brown, metathorax with yellow patch; abdomen orange-yellow. Fore wing brown, with yellowish-white patch in base of cell; three antemedial spots—on costa, in submedian interspace, and an elongate spot on inner margin; a large postmedial spot below costa and a quadrate patch in and beyond lower angle of cell; a small spot above inner margin. Hind wing yellowish white, more orange towards base of inner margin; the apex and cilia fuscous.

Hab. JAVA, Arjuno, 3000 ft. (*Doherty*), 1 ♀ type. *Exp.* 40 millim.

*931. *Asura pyraula*. (Plate XXX. fig. 12.)

Calligenia pyraula, Meyr. Pr. Linn. Soc. N.S.W. (2) i. p. 704 (1886); Kirby, Cat. Het. p. 308.

♀. Head and thorax orange slightly tinged with crimson; palpi crimson; tegulæ, patagia, and mesothorax with fuscous spots; abdomen pale crimson, dorsally greyish towards base; extremities of fore and mid tibiæ and tarsi fuscous. Fore wing orange, the costal edge black towards base; a subbasal black point in cell and basal and subbasal fuscous marks on costa and larger mark below the cell; an antemedial fuscous line angled outwards on subcostal and median nervures, then oblique, angled inwards in submedian fold and outwards on vein 1; a medial line angled outwards on subcostal nervure and connected by a streak with the ante- and postmedial lines, then expanding, oblique, angled inwards

on vein 1, and connected with the antemedial line; the postmedial line angled inwards below costa, then outwardly oblique to vein 4, where it is angled, then angled inwards in submedian fold; diffused black streaks on the veins beyond it, forming a large subapical patch; the costal area and termen crimson, the costal edge beyond the postmedial line black; the termen with a series of black points; cilia black. Hind wing yellowish, tinged with crimson towards margins; the cilia near apex black.

Hab. N. GUINEA, Port Moresby; QUEENSLAND, Coll. Meyrick.
Exp. 32 millim.

932. *Asura quadrilineata*. (Plate XXX. fig. 16.)

Calligenia quadrilineata, Pag. Jahrb. Nass. Ver. xxxix. p. 126 (Aug. 1886); Kirby, Cat. Het. p. 307.

Calligenia melitaula, Meyr. Pr. Linn. Soc. N.S.W. (2) i. p. 705 (Nov. 1886); Kirby, Cat. Het. p. 309.

Mitochrista simulans, Butl. Trans. Ent. Soc. 1886, p. 382 (Dec. 1886).

Orange; palpi at tips, antennæ, marks on tegulæ, outer edge of patagia, marks on meso- and metathorax, and bands on fore and mid tibiæ fuscous. Fore wing fuscous, with orange subbasal patch not quite extending to costa, towards which it narrows; an antemedial spot on costa, with wedge-shaped spot below it in cell and two on inner area sometimes conjoined; large rounded spots on costa beyond middle, in and beyond end of cell, and on inner margin; a subterminal series of dentate marks; a terminal series of spots, those above veins 3 and 6 smaller. Hind wing paler orange.

Fore wing with veins 11 and 12 sometimes connected by a bar only; hind wing with veins 4 and 5 stalked.

Hab. ART; AUSTRALIA, Rockhampton, 1 ♀, type *simulans*; Port Darwin (*J. J. Walker*, 1 ♂, 2 ♀. *Exp.* 32 millim.

933. *Asura euprepioides*.

Hypocrita euprepioides, Wlk. Journ. Linn. Soc., Zool. vi. p. 102 (1862); Hmps. Moths Ind. ii. p. 116; Swinh. Cat. Het. Mus. Oxon. p. 108;

Kirby, Cat. Het. p. 309.

Hypocrita inclusa, Snell. Tijds. v. Ent. xx. p. 68, pl. v. ff. 2a-c (1877).

Yellow; palpi at tips, antennæ, a streak on vertex of head, spots on tegulæ and patagia, meso- and metathorax, and fore coxæ black; the greater part of tibiæ and tarsi black. Fore wing with the costa black; the inner margin slightly streaked with black; an antemedial black band strongly angled in cell; a medial band very acutely angled inwards in cell and connected by a streak with the ante- and postmedial bands, then sometimes enclosing an oblique yellow spot, and in submedian fold angled acutely outwards to postmedial band, on vein 1 connected by a streak with the antemedial band; the postmedial band excurved to vein 4, then angled inwards in submedian fold; a similar but somewhat waved band beyond it, but bent outwards to costa and

connected with the termen by streaks on veins 6 and 4; cilia black. Hind wing with short curved fuscous line from costa near apex; the cilia fuscous to vein 2.

Ab. 1. Fore wing with short black streak below base of cell, the inner margin not black.—Samboangan.

Hab. SUMATRA (*Forbes*), 2 ♀; BORNEO, Pulo Laut (*Doherty*), 1 ♀, Sarawak (*Wallace*), 1 ♀, Baram, Sandakan (*Pryer*), 2 ♂; PHILIPPINES, Samboangan (*J. J. Walker*), 1 ♀. *Exp.* 34–36 millim. Type in Mus. Oxon.

Subsp. 1. *interserta*, Moore, P. Z. S. 1878, p. 32, pl. 3. f. 6; Kirby, Cat. Het. p. 309.

Fore wing with the markings reduced to narrow lines, the spot enclosed by the medial line large.

Hab. SIKHIM (*Atkinson, Lidderdale*), 2 ♀, type; BURMA, Pegu, 1 ♂.

934. *Asura sagenaria*. (Plate XXX. fig. 17.)

Setina sagenaria, Wllgrn. Wien. Ent. Mon. iv. p. 46 (1860); Kirby, Cat. Het. p. 307.

Barsine natalensis, Wlk. xxxi. 250 (1864).

Orange-yellow; vertex of head, shoulders, patagia, and mesothorax with black spots; fore and mid tibiae black at extremity. Fore wing with subbasal black spot and short fuscous streaks on costa and below the cell; the antemedial line angled outwards in cell and on vein 1; the medial line angled inwards in cell and connected with the antemedial line, then strongly excurved and connected in submedian fold with the postmedial line; a discoidal spot; the postmedial line arising at the same point as the medial line, very strongly bent outwards below the costa and angled on vein 6, then oblique and angled in submedian fold, a series of short streaks on the veins beyond it and more or less conjoined to it, those on veins 6 and 4 longer; the costa towards apex and the cilia black.

Hab. E. AFRICA, Lindi; DELAGOA BAY (*H. Junod*), 1 ♂; NATAL, 1 ♂, type *natalensis*, (*Heale*) 1 ♀, Malvern (*Marshall*), 1 ♀. *Exp.*, ♂ 28, ♀ 34 millim. Type † in Mus. Stockholm.

935. *Asura nigriciliata*, n. sp. (Plate XXX. fig. 19.)

♀. Orange-yellow tinged with crimson; fore tibiae with slight fuscous marks; abdomen greyish. Fore wing with subbasal black point; the costa blackish towards base, the antemedial line angled strongly outwards in cell and meeting the medial line, which is slightly angled inwards; a discoidal point; the postmedial line arising from the same point as the medial line, then strongly excurved and below vein 4 oblique; a dentate subterminal line, bent outwards to costa and dentate at veins 6 and 4; the costa towards apex and cilia black.

Hab. SANGIR (*Doherty*), 1 ♀ type. *Exp.* 24 millim.

936. *Asura structa*. (Plate XXX. fig. 20.)

Pallene structa, Wlk. ii. 543 (1854); Kirby, Cat. Het. p. 295.

Orange tinged with scarlet; palpi at tips and legs above fuscous. Fore wing irrorated with black hairs; a subbasal black point; the costa black at base; a very indistinct antemedial dentate line angled outwards on subcostal and median nervures; an indistinct dentate medial line excurved from below costa to vein 1; a more prominent minutely-dentate curved postmedial line; an obscure diffused subterminal line bent inwards towards costa and obsolete towards inner margin; slight dark streaks on the veins towards termen; cilia blackish. Hind wing with broad black terminal band, its inner edge with a sinus between vein 5 and submedian fold.

Hab. N. S. WALES, Richmond R., Newcastle, Sydney (*Mathew*), 6 ♀, type. *Exp.* 22 millim.

*937. *Asura ruenca*.

Lycelene ruenca, Swinh. Cat. Het. Mus. Oxon. p. 101, pl. iv. f. 15 (1892).

♂. Yellow; vertex of head with black point; patagia streaked with fuscous; palpi and fore legs tinged with fuscous. Fore wing with fuscous mark below base of cell; the costa streaked with fuscous to the antemedial line, which is angled outwards in cell to join the medial line, which is angled inwards; the postmedial line arising from the same point as the medial line, strongly excurved and then joining it again above inner margin, a series of obscure streaks on the veins beyond it, those on veins 6 and 4 longer; cilia black. Hind wing pale yellow.

Hab. SULA (*Wallace*), 1 ♂ type in Mus. Oxon. *Exp.* 20 millim.

938. *Asura conjunctana*.

Conchylis conjunctana, Wlk. xxxv. 1788 (1866); Hmps. Moths Ind. ii. p. 116; Kirby, Cat. Het. p. 309.

Mitochondria tessellata, Butl. Ill. Het. B. M. v. p. 39 pl. 86. f. 12 (1881).

Barsine eschara, Swinh. A. M. N. H. (6) xiv. p. 438 (1894); Hmps. Moths Ind. iv. p. 501.

Yellow: shoulders with black spots; palpi at sides and fore legs marked with fuscous. Fore wing with subbasal black point; the costa streaked with black to the antemedial line, which is very acutely angled outwards on subcostal nervure and above vein 1 to join the medial line and inwards below the cell; the medial line excurved from below costa to become coincident with the postmedial line at lower angle of cell; the postmedial line strongly excurved from costa to vein 4, and with streaks from it to near termen below costa and on veins 6, 4, and 1; a terminal line.

Hab. SIKHIM, 1 ♂, type, (*Lidderdale*) 1 ♀, type *tessellata*; ASSAM, Khâsis, 1 ♀, type *eschara*. *Exp.*, ♂ 20, ♀ 22 millim.

939. *Asura distributa*. (Plate XXX. fig. 21.)

Lyelène distributa, Wlk. Journ. Linn. Soc., Zool. vi. p. 113 (1862); Kirby, Cat. Het. p. 914.

Pale ochreous; vertex of head, shoulders, patagia, fore and mid tibiae, and tarsi with black spots. Fore wing with black spot at base; short fuscous streaks below base of costa, median nervure, and vein 1; an antemedial line angled outwards in cell to meet the medial line, which is angled inwards; the postmedial line excurved at middle and joining the medial line above inner margin, a forked streak from it to costa just before apex and termen below apex, a streak on vein 4 and two spots below that point, or these streaks more broken up into spots. Hind wing with obscure fuscous medial band from cell to inner margin; a subterminal band, becoming terminal at apex and below vein 2.

Hab. BORNEO, Sarawak (*Wallace*), 3 ♂, type. *Exp.* 18 millim.

940. *Asura numida*. (Plate XXX. fig. 22.)

Miltochrista numida, Holl. Psyche, vi. p. 400 (1893).

Pale ochreous; the extremities of tibiae clothed with long black hair. Fore wing irrorated with a few black scales; a black point at base of costa; a double rather ill-defined waved black line just before middle, the area from it to near termen suffused with pale pink; an indistinct waved medial line conjoined in cell to the antemedial line; a discoidal black spot; the postmedial line arising from the same point as the medial line, obscurely waved and strongly bent outwards from below costa to vein 2, a series of obscure spots beyond it, three towards apex, one at middle, and one on inner margin more prominent. Hind wing with the apical area slightly tinged with pink; a terminal black spot below apex and slight marks between veins 4 and 2.

Hab. W. AFRICA, R. Niger, Sapele (*F. W. Sampson*), 1 ♂, 1 ♀, Ogové R., 1 ♂ cotype. *Exp.* 18 millim. Type † in Coll. Holland.

941. *Asura obliterata*. (Plate XXXI. fig. 2.)

Nudaria obliterata, Wlk. xxxi. 273 (1864); Kirby, Cat. Het. p. 361.

Barsine indecisa, Wlk. Proc. N. H. Soc. Glasg. i. p. 325 (1869); Kirby, Cat. Het. p. 310.

Paidia rufostria, Plotz, Stett. ent. Zeit. xli. p. 81 (1880); Kirby, Cat. Het. p. 364.

Barsine gabunica, Holl. Psyche, vi. p. 399 (1893).

Orange-yellow; vertex of head and tegulae with fuscous spots; extremities of fore and mid tibiae and tarsi black. Fore wing with pale purplish-fuscous markings edged with scarlet; a subbasal spot; a double waved antemedial line; a medial line angled inwards in cell and submedian fold and outwards on median nervure; a discoidal point; a strongly dentate postmedial line arising from close to the medial line, strongly bent outwards from below costa to

vein 2, then retracted to near the medial line; a curved series of spots beyond it. Hind wing paler orange-yellow.

Hab. SIERRA LEONE (*Forcroft*), 1 ♀ type; OLD CALABAR (*Miss Kingsley*), 1 ♀; FR. CONGO, Ogové R., 1 ♀; CONGO, 1 ♂, type *indecis*. *Exp.*, ♂ 22, ♀ 26 millim. Type † *gabunica* in Coll. Holland.

942. *Asura flavivenosa*.

Barsine flavivenosa, Moore, P. Z. S. 1878, p. 30, pl. iii. f. 18; Hmps. Moths Ind. ii. p. 119; Kirby, Cat. Het. p. 307.

Pale yellow; abdomen dorsally tinged with fuscous towards extremity. Fore wing with the veins strongly streaked with crimson; a subbasal black point; an antemedial fuscous line angled in cell, then oblique; a medial line angled inwards and connected with the antemedial line in cell, then excurved and obsolescent; the postmedial line obtusely angled on vein 5, then oblique, and with a series of short dark streaks from its outer edge in the interspaces between vein 4 and the costa. Hind wing tinged with pink, especially in male.

Hab. SIKHIM, Moore Coll., 1 ♀; BHUTÁN, 2500 feet (*Dudgeon*), 1 ♂. *Exp.*, ♂ 18, ♀ 24 millim. Type † in Coll. Staudinger.

943. *Asura senara*.

Barsine senara, Moore, Lep. E. I. C. p. 302 (1859); Kirby, Cat. Het. p. 309.

Hypocrita porphyrea, Snell. Veth's Midden-Sumatra, Lep. p. 35, pl. 3. f. 12 (1880); Kirby, Cat. Het. p. 309.

♂. Head and thorax orange suffused with crimson; patagia and mesothorax with fuscous points; abdomen ochreous, with a greyish tinge on dorsum. Fore wing orange, with crimson-edged fuscous markings; two fuscous points at base and short streaks below base of costa and median nervure; an antemedial line strongly angled at middle; a broad medial line strongly angled inwards to join the antemedial line on median nervure, and connected at the same point by a streak with the postmedial line, then bent outwards to join the postmedial line at inner margin; a discoidal point; the postmedial line curved below costa, which it does not quite reach; a subterminal maculate line angled outwards on veins 6 and 4; a terminal series of crimson spots connected in places with the subterminal line. Hind wing yellow, tinged with crimson towards termen and inner margin.

Hab. BORNEO; SUMATRA, 1 ♂; JAVA (*Horsfield*), 1 ♂ type. *Exp.* 22 millim. Type † *porphyrea* in Coll. Snellen.

*944. *Asura perpusilla*. (Plate XXXI. fig. 3.)

Hypoprepia perpusilla, Wlk. Journ. Linn. Soc., Zool. vi. p. 102 (1862); Swinh. Cat. Het. Mus. Oxon. p. 108; Kirby, Cat. Het. p. 306.

♂. Yellow. Fore wing slightly suffused with scarlet; slight

fuscous points at base; a straight oblique antemedial line; the medial line arising from the same point as the antemedial line, then strongly excurved, joined at median nervure by an oblique line from origin of postmedial line, which is angled outwards below costa, then oblique, and connected with the medial line by a streak on vein 4; some subterminal dark points. Hind wing pale yellow.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ type† in Mus. Oxon. *Exp.* 16 millim.

945. *Asura semifascia*.

Setina semifascia, Wlk. ii. 521 (1854); Hmps. Moths Ind. ii. p. 109; Moore, Lep. Ceyl. ii. p. 63, pl. 103. f. 7; Kirby, Cat. Het. p. 299.

♂. Yellow tinged with brownish; palpi blackish; shoulders and mesothorax with black points; legs marked with black. Fore wing with black point at base; the costa streaked with fuscous towards base; subbasal fuscous spots below costa and cell; the antemedial line excurved below costa, then oblique; a slightly oblique waved medial line; a discoidal point; the postmedial line bent outwards below costa, strongly dentate on veins 7, 6, and 4, then bent inwards and slightly dentate; an irregular subterminal series of spots, angled outwards at veins 6 and 4. Hind wing with the terminal half suffused with fuscous; an obscure postmedial line.

♀ much yellower; hind wing sometimes wholly yellow, sometimes with fuscous terminal band.

Ab. 1. Fore wing with the subterminal series of spots obsolete. Coll. Green.

Hab. CEYLON (*Templeton*), 1 ♀ type, Pundaloya (*Green*), 2 ♂, 1 ♀; BURMA, Rangoon (*Scott*), 2 ♀. *Exp.* 24–26 millim.

Larva. Hamps. Ill. Het. ix. p. 84, pl. 158. f. 11.

Mouse-grey, almost black, each somite densely clothed with fine plumose hairs, a few longer hairs on anterior and posterior somites. Food-plant, minute mosses. The larva when disturbed rolls itself into a ball, the thick hair dividing at junction of somites.

946. *Asura flavida*. (Plate XXXI. fig. 4.)

Mitochrista flavida, Butl. A. M. N. H. (5) xix. p. 219 (1887); Kirby, Cat. Het. p. 309.

♀. Yellow; patagia streaked with fuscous; fore tibiae with fuscous patch. Fore wing with fuscous spot at base and streak in submedian fold to the antemedial line, which is angled outwards on median nervure and connected by a short streak with the medial line, which is incurved at middle; a curved postmedial line joining the medial line at inner margin, and with an irregularly dentate line beyond it not reaching costa, and emitting a longer tooth on vein 6 and a streak to termen on vein 4.

Hab. N. AUSTRALIA, Adelaide R. (*J. J. Walker*), 1 ♀; SOLOMONS, Alu (*Woodford*), 1 ♀ type. *Exp.* 26 millim.

947. *Asura crocota*, n. sp. (Plate XXXI. fig. 5.)

Calligenia militaula, Meyr. Trans. Ent. Soc. 1889, p. 462, nec Meyr. 1886.

♀. Orange-yellow; patagia, meso- and metathorax, and fore and mid tibiae with fuscous spots. Fore wing with subbasal black point; a slight mark at base of costa and slight subbasal fuscous spots below costa and cell; the antemedial line fine, strongly angled outwards on subcostal and median nervures and vein 1 and inwards in submedian fold; a medial line excurved in cell, then inwardly oblique and angled inwards on vein 1; the postmedial line minutely dentate, oblique from costa to vein 7, then excurved and angled inwards on vein 2, a series of marks beyond it conjoined from below costa to vein 4 and running out to near termen on veins 6 and 4, angled inwards on vein 2. Hind wing pale yellowish.

♂. More tinged with orange; fore wing with the lines less dentate.

Hab. N. GUINEA, Dinner Island (*Kowald, Sayer*), type ♀ in Coll. Meyrick; LOUISIADÆ, St. Aignan (*Meek*), 1 ♂ type. *Exp.* 36 millim.

948. *Asura fulguritis*, n. sp. (Plate XXXI. fig. 6.)

♀. Pale ochreous yellow; fore tibiae with fuscous patches. Fore wing with subbasal black point; the costa streaked with black towards base; a fuscous streak below the cell before the antemedial line, which is very acutely angled inwards in cell and outwards in submedian fold; a medial line slightly incurved at middle; the postmedial line arising from close to the medial line, strongly angled outwards on veins 6 and 4, then bent inwards, slightly angled in submedian fold and becoming confluent with the medial line towards inner margin, a series of short streaks beyond it, those on veins 8, 6, and 4 displaced towards termen.

Hab. PULO LAUT (*Doherty*), 1 ♀; BALI (*Doherty*), 1 ♀ type. *Exp.* 22 millim.

949. *Asura birivula*, n. sp. (Plate XXXI. fig. 30.)

♀. Pale yellow; mesothorax slightly marked with fuscous; fore and mid tibiae with fuscous marks; abdomen greyish towards base. Fore wing with subbasal black point; the costal edge black towards base; a fuscous streak below median nervure before the antemedial line, which is acutely angled inwards in cell, then strongly excurved; a double postmedial line angled sharply outwards below the costa, then bent inwards, the inner line obsolescent below submedian fold, the outer angled inwards on vein 1; a series of streaks on the veins from just beyond the line, those on veins 6 and 4 longer.

Hab. BORNEO, Sandakan (*Pryer*), 2 ♀, type. *Exp.* 22 millim.

950. *Asura asaphes*, n. sp. (Plate XXXI. fig. 31.)

Pale orange-yellow; frons, pectus, and abdomen whitish; fore tibiæ with fuscous band. Fore wing with subbasal black point; costa brownish towards base; two pale brownish subbasal spots below the cell; the lines pale brownish, the antemedial line angled outwards in cell, then oblique, and angled inwards in submedian fold and on vein 1; a discoidal point; the postmedial line bent outwards below costa, then dentate, with longer teeth on veins 6 and 4, then oblique, with a tooth sometimes connected with the antemedial line on vein 2; a pale brown terminal band with irregularly dentate inner edge. Hind wing yellowish white.

Hab. BORNEO, Sandakan (*Pryer*), 1 ♂, 2 ♀, type. *Exp.*, ♂ 16, ♀ 20 millim.

951. *Asura ectophaea*, n. sp. (Plate XXXI. fig. 9.)

♂. Ochreous yellow; fore legs, mid tibiæ and tarsi, and extremities of hind tibiæ and tarsi fuscous; abdomen with the anal tuft fuscous. Fore wing with the costa streaked with black to the antemedial line, which is angled outwards in cell, inwards just below the cell, then oblique; a postmedial dentate line acutely dentate on veins 7, 6, and 3, then retracted to below end of cell; the terminal area suffused with fuscous with traces of an irregular line. Hind wing with irregularly diffused fuscous on terminal area, and sometimes traces of postmedial and subterminal lines.

Ab. 1. Fore wing with the fuscous markings reduced; very slight traces of fuscous on terminal area and none on hind wing.

Hab. N. AUSTRALIA, Port Darwin (*J. J. Walker*), 4 ♂, type. *Exp.* 26 millim.

952. *Asura varians*.

Lyclene varians, Hmps. Ill. Het. ix. p. 85, pl. 158. ff. 10, 20, 32, 33 (1893); id. Moths Ind. ii. p. 115.

♂. Fuscous black; head and thorax orange; antennæ usually black; vertex of head, shoulders, patagia, meso- and metathorax with black points; pectus, ventral surface, and extremity of abdomen black or orange; legs orange, the tibiæ with black bands; wings black with a slight reddish tinge, with a slight orange mark at base only, or with orange-red streaks on costa before and after middle and towards apex, or with spot also on middle of inner margin, or with oblique antemedial series of spots and terminal series of marks. Hind wing semihyaline towards base.

♀ either with the fore wing like the unmarked male, but browner or like the male with most orange-red, with an irregular terminal band with series of black points on it, or the abdomen and fore wing orange with irregular antemedial, medial, and postmedial fuscous bands connected by a fascia and coalescing below the cell

and the two latter beyond the cell; a terminal series of points. Hind wing sometimes yellowish on basal and inner areas.

Hab. CEYLON, Pundaloya (*Green*), 4 ♂, 4 ♀, type. *Exp.*, ♂ 20, ♀ 22 millim.

953. *Asura umbrosa*. (Plate XXX. fig. 15.)

Mittochrista umbrosa, Hmps. Moths Ind. iv. p. 501 (1896).

Head, thorax, and abdomen fuscous brown; vertex of head, tips of tegulae, and edges of metathorax whitish; patagia tipped with yellow. Fore wing whitish, a large fuscous patch on basal half of costa extending to submedian fold, its outer edge oblique; subbasal and antemedial spots above vein 1; a curved streak above middle of inner margin; an oblique medial series of spots; a very irregular broad postmedial band expanding widely towards costa and below vein 3, strongly angled inwards and angled outwards to the terminal series of spots below apex, at middle, and tornus. Hind wing yellowish, with the terminal area fuscous.

Hab. ASSAM, Khásim, 3 ♂, 2 ♀. *Exp.*, ♂ 30, ♀ 34 millim. Type† in Coll. Elwes.

954. *Asura nebulosa*. (Plate XXXI. fig. 11.)

Setina nebulosa, Moore, P. Z. S. 1878, p. 35; Hmps. Moths Ind. ii. p. 115; Kirby, Cat. Het. p. 358.

♀. Yellow; mesothorax with obscure brownish mark; abdomen yellowish white. Fore wing with subbasal black point; the costal edge streaked with black towards base; antemedial and a curved medial brownish and fuscous line, confluent below the cell and expanding into a large patch on inner area; a very broad brown-edged fuscous postmedial band with sinuous inner edge, becoming confluent with the medial band towards inner margin, its outer edge angled at veins 6 and 4. Hind wing yellowish white, with indistinct diffused fuscous subterminal band.

Hab. SIKHIM (*Atkinson, Lidderdale*), 2 ♀, type. *Exp.* 34 millim.

955. *Asura fuscalis*.

Lyclene fuscalis, Hmps. Ill. Het. B. M. viii. p. 50, pl. 139. f. 9 (1891); id. Moths Ind. ii. p. 111; Kirby, Cat. Het. p. 305.

♂. Head and thorax orange-red; palpi at sides and legs slightly streaked with fuscous; vertex of head, shoulders, meso- and metathorax with fuscous spots; abdomen greyish fuscous, the anal tuft ochreous. Fore wing orange-red; the costa black toward base; a fuscous patch in and below the cell from base expanding to the medial oblique band; a discoidal spot; the terminal area fuscous, its inner edge running inwards to a point below the cell or confluent with the medial band; an indistinct terminal series of points; cilia ochreous. Hind wing ochreous, with obscure diffused oblique medial line; apex tinged with fuscous.

Hab. NILGIRI PLATEAU, 7000 ft. (Hampson), 3 ♂, type. *Exp.* 30 millim.

This may be an extreme form of *A. inconspicua*.

956. *Asura inconspicua*.

Lyclene inconspicua, Moore, P. Z. S. 1878, p. 32; Hmps. Moths Ind. ii. p. 111; Kirby, Cat. Het. p. 305.

Lyclene obliqua, Hmps. Ill. Het. B. M. viii. p. 51, pl. 139. f. 25 (1891); id. Moths Ind. ii. p. 114; Kirby, Cat. Het. p. 305.

Head and thorax orange-red; palpi and legs slightly streaked with fuscous; vertex of head, shoulders, patagia, and mesothorax with fuscous spots; abdomen greyish fuscous, the anal tuft ochreous. Fore wing orange-red; a subbasal black point; the costa black towards base; an antemedial diffused oblique fuscous band not reaching costa or inner margin; a rather broad oblique medial line; a discoidal spot; the veins of terminal area strongly streaked with fuscous to near termen, sometimes conjoined into an irregular fuscous band; a terminal series of points. Hind wing pale ochreous.

Ab. 1. *obliqua*. Ochreous yellow.

Hab. "N. India," 1 ♂ type; NILGIRIS (*Cardew, Hampson*), 3 ♂, 2 ♀, type *obliqua*. *Exp.* 30-32 millim.

957. *Asura hyporhoda*, n. sp. (Plate XXXI. fig. 10.)

♂. Orange; extremities of palpi, tibiae, and tarsi black. Fore wing with black points at base of costa and cell; an oblique sinuous fuscous antemedial band; a medial band angled inwards in cell and touching the antemedial band, then bent outwards and touching the postmedial band above inner margin; the postmedial band composed of confluent streaks, its outer edge angled at veins 6 and 4, then incurved. Underside of fore wing with the disk suffused with crimson.

The type has vein 11 of fore wing curved and approximated to 12, in other specimens it anastomoses with 12.

Hab. SIERRA LEONE (*Clements*), 1 ♂ type. *Exp.* 20 millim.

958. *Asura rubricosa*.

Lyclene rubricosa, Moore, P. Z. S. 1878, p. 30, pl. 3. f. 1; Hmps. Moths Ind. ii. p. 111; Kirby, Cat. Het. p. 305.

Lyclene curvifascia, Hmps. Ill. Het. B. M. viii. p. 49, pl. 139. f. 17; Kirby, Cat. Het. p. 305.

Lyclene ochracea, Hmps. Ill. Het. B. M. viii. p. 51, pl. 139. f. 26; Kirby, Cat. Het. p. 305.

Head and thorax orange-red; shoulders, patagia, mesothorax, and tibiae with fuscous spots; abdomen ochreous. Fore wing orange-red; a subbasal black spot; the costa streaked with black towards base; an antemedial diffused irregularly dentate line bent inwards to costa, then oblique; an oblique medial band nearly straight or slightly curved and irregular; a discoidal spot; a post-

medial diffused and irregularly dentate band, oblique and usually connected with the medial band below the cell, then bent outwards to inner margin, with longer teeth on veins 6 and 4; a terminal series of points. Hind wing pale reddish.

Ab. 1. *ochracea*. Ground-colour orange-yellow.

Hab. KASHMIR, 2 ♀; KANGRA (*Hocking*), 1 ♀; SIKHIM; BOMBAY (*Swinhoe*), 3 ♀ type, Khandalla; NILGIRIS (*Hampson*), 1 ♂, 3 ♀, types *curvifascia* and *ochracea*; CEYLON. *Exp.* 22–26 millim.

959. *Asura congerens*.

Cynilla congerens, Feld. Reis. Nov. pl. 106. f. 14 (1874); Hmps. Moths Ind. ii. p. 114; Kirby, Cat. Het. p. 305.

*Lyclene artocarp*i, Moore, P. Z. S. 1878, p. 30; Hmps. Moths Ind. ii. p. 114; Kirby, Cat. Het. p. 304.

♂. Orange-yellow; tegulæ, shoulders, and patagia with fuscous spots. Fore wing slightly tinged with red; a fuscous subbasal spot; an irregular diffused fuscous antemedial band; a slightly sinuous oblique medial band, its outer edge almost or quite confluent with a discoidal spot; an irregular oblique postmedial band, its outer edge angled outwards at veins 6 and 4, and below the cell becoming confluent with the medial band.

♀ much yellower.

Hab. N.W. HIMALAYAS; SIKHIM, 1 ♂, 1 ♀, type *artocarp*i; CALCUTTA. *Exp.* 20–26 millim.

*960. *Asura creatina*.

Paidia creatina, Snell. Tijds. v. Ent. xxii. p. 85, pl. 7. f. 8 (1879); Kirby, Cat. Het. p. 364.

♂. Head, thorax, and abdomen orange-yellow; vertex of head with a black point; shoulders, patagia, and mesothorax with paired black points. Fore wing yellow, strongly suffused with crimson; a subbasal black point; the costa streaked with black to the antemedial curved series of small spots, the spot below the cell displaced inwards; a slightly oblique medial black line slightly bent inwards above inner margin; a prominent discoidal spot; a strongly curved postmedial series of short streaks on the veins, the streaks on veins 4 and 1 displaced towards termen; a terminal black line. Hind wing yellow suffused with crimson, deeper in colour towards apex.

Hab. CELEBES. *Exp.* 20 millim.

961. *Asura floccosa*. (Plate XXXI. fig. 13.)

Nudaria floccosa, Wlk. xxxi. 274 (1864); Hmps. Moths Ind. ii. p. 114; Kirby, Cat. Het. p. 360.

Nudaria subcervina, Wlk. xxxi. 274 (1864); Hmps. Moths Ind. ii. p. 114; Kirby, Cat. Het. p. 361.

Pale greyish ochreous; tegulæ, shoulders, patagia, and mesothorax with fuscous spots; tibiæ marked with fuscous; wings semihyaline. Fore wing with fuscous subbasal spot; the costal

area fuscous towards base; a waved diffused antemedial line excurved in cell and on vein 1; a slightly curved and irregular diffused medial line; a discoidal point; a postmedial series of points bent inwards to costa, then oblique, on veins 6 and 4 developed into short streaks; a terminal series of points. Hind wing paler.

Hab. SIKHIM, 1 ♂; CALCUTTA, 2 ♀; GANJAM; MADRAS (*Watson*), 1 ♀; COIMBATORE (*Walhouse*), 1 ♀ type; CEYLON (*Yerbury*), 1 ♀, Puttalam (*Pole*), 1 ♂, 2 ♀. *Exp.*, ♂ 20, ♀ 22 millim.

962. *Asura ruptifascia*.

Lyclene ruptifascia, Hmps. Ill. Het. ix. p. 85, pl. 158. f. 12 (1893); id. *Moths Ind.* ii. p. 114.

♂. Pale yellow; shoulders, patagia, meso- and metathorax with dark points; palpi and fore and mid tibiae and tarsi banded with black. Fore wing with subbasal black point; the costal edge black towards base; an antemedial maculate band, somewhat angled inwards below the cell and ending in a point above inner margin; a medial band angled outwards to discoidal point, then oblique, irregular, and confluent with antemedial band in submedian fold; a postmedial series of points retracted to costa, the point on vein 5 nearer the cell, below vein 4 incurved and developed into a band. Hind wing paler, with indistinct oblique medial line.

♀. Fore wing with the medial band much broader and confluent with the postmedial series of points except towards costa and inner margin.

Hab. CALCUTTA (*Atkinson*); CEYLON, Newalapittia (*Green*), 1 ♂, 1 ♀ type. *Exp.* 18 millim.

963. *Asura ila*.

Lyclene ila, Moore, Lep. E. I. C. p. 300 (1859); id. Lep. Ceyl. ii. p. 63, pl. 103. f. 6; Hmps. *Moths Ind.* ii. p. 112; Kirby, Cat. Het. p. 304.

Pale yellow; palpi tinged with fuscous at sides; vertex of head, shoulders, patagia, and mesothorax with fuscous points; tibiae banded with fuscous. Fore wing with small blackish spots at base of costa and cell; an antemedial series of spots, below costa, in cell, one nearer the base below the cell, and two obliquely placed on inner area; a slightly curved more or less broad medial band, attenuate towards costa, its edges more or less irregular; a discoidal point; a postmedial series of points bent inwards to costa, the one on vein 5 nearer the cell, incurved below vein 4 and sometimes confluent with the medial band; a terminal series of points. Hind wing paler, with indistinct diffused fuscous medial line.

Hab. KANARA (*S. N. Ward*), 1 ♀ type; CEYLON, Pundaloya (*Green*), 2 ♂, 1 ♀, Puttalam (*Pole*), 1 ♂, 1 ♀. *Exp.* 22-24 millim.

*964. *Asura parallelina*. (Plate XXXI. fig. 14.)

Mittochrista parallelina, Hmps. *Moths Ind.* ii. p. 110 (1894).

♀. Head, thorax, and abdomen ochreous. Fore wing orange-

red; the costal edge black towards base; an antemedial series of five black spots, the one below median nervure displaced inwards; an indistinct fine straight line just before the discoidal point; an oblique postmedial series of five black streaks on the veins, the streak on vein 3 longer. Hind wing paler.

Hab. BURMA, E. Pegu (*Doherty*), type† in Coll. Elwes. *Exp.* 19 millim.

965. *Asura atritermina*, n. sp. (Plate XXXI. fig. 23.)

Orange-yellow; vertex of head, shoulders, patagia, mesothorax, tibiæ, and tarsi spotted with black. Fore wing with subbasal black spot; the costa black towards base; an antemedial series of five spots, those below the cell and vein 1 displaced inwards; a medial line slightly angled inwards on median nervure and outwards on vein 1; a prominent discoidal spot; a subterminal series of spots strongly retracted to costa, the spots on veins 8, 6, and 4 nearer the termen; a terminal black line expanding into spots at the veins. Hind wing paler, with slight fuscous mark towards apex.

Hab. SANGIR (*Doherty*), 1 ♂, 2 ♀, type. *Exp.*, ♂ 20, ♀ 24 millim.

966. *Asura andamana*. (Plate XXXI. fig. 24.)

Sesapa andamana, Moore, P. Z. S. 1877, p. 597; Hmps. Moths Ind. ii. p. 115; Kirby, Cat. Het. p. 310.

Yellowish white; palpi, antennæ, spots on vertex of head, tegulæ, shoulder, patagia and thorax, fore tibiæ and tarsi blackish. Fore wing with black spot at base; the costa streaked with black towards base; two obliquely placed subbasal black spots below the cell and a spot rather beyond them in cell; a medial line excurved from median nervure to vein 1; a discoidal spot; a postmedial series of elongate spots on the veins, strongly bent outwards below costa and incurved below vein 3, the spots on veins 6 and 4 extending more towards termen; a terminal series of points usually conjoined into a line and extending to costa before apex.

Hab. ANDAMANS, 3 ♂, 3 ♀, type. *Exp.*, ♂ 18, ♀ 20 millim.

967. *Asura strigipennis*.

Paidia strigipennis, Herr.-Schäff. Aussereur. Schmett. f. 437 (1855)

Hmps. Moths Ind. ii. p. 111; Kirby, Cat. Het. p. 311.

Barsine circumdata, Wlk. xxxi. 252 (1864).

Mittochrista sinica, Moore, A. M. N. II. (4) xx. p. 87 (1877); Kirby, Cat. Het. p. 311.

Lyclene discistriga, Moore, P. Z. S. 1878, p. 32; Kirby, Cat. Het. p. 311.

Lyclene terminata, Moore, P. Z. S. 1878, p. 33; Kirby, Cat. Het. p. 310.

Lyclene scripta, Heyl. Ann. Soc. Ent. Belge, xxxv. p. ccccxv (1891); Kirby, Cat. Het. p. 314.

Lyclene fruhstorferi, Auriv. Ent. Tidskr. xv. p. 172 (1894).

Yellow; palpi towards tips, shoulders, patagia, and mesothorax with black points; fore legs mostly fuscous; mid and hind tibiæ and tarsi fuscous at extremities. Fore wing often tinged with

crimson, especially towards costa and termen; a subbasal black point; the costal edge black towards base; an antemedial series of five short streaks, those in cell and above vein 1 displaced outwards; a medial oblique and slightly sinuous line; a discoidal spot; a post-medial series of short streaks, bent inwards and reduced to spots below costa, the streaks on veins 5, 3, and 2 displaced inwards; a terminal series of black points. Hind wing tinged with crimson towards apex in male, more uniformly in female; an obscure black subapical spot sometimes present.

Hab. CHINA, Nankow Pass, 1 ♂, Shanghai (*Fortune*), 2 ♂, 2 ♀ type *sinica*, Chekiang (*Pryer*), 2 ♂; FORMOSA (*Hobson*), 1 ♂; SIKHIM (*Dudgeon*), 1 ♂, 1 ♀ type *discistriga*; ASSAM, Khásis, 1 ♂, type *terminata*; SUMATRA (*Forbes*), 1 ♀; BORNEO, Sandakan (*Pryer*), 1 ♂, Sarawak (*Wallace*), 1 ♀, type *circundata*; PULO LAUT (*Doherty*) 1 ♂; JAVA, type † ♀ *fruhstorferi* in Mus. Stockholm. *Exp.* 16–34 millim.

968. *Asura arcuata*.

Lyclene arcuata, Moore, Lep. Ceyl. ii. p. 62, pl. 103. f. 5 (1882); Hmps. r.

Moths Ind. ii. p. 112; Kirby, Cat. Het. p. 305.

Lyclene rosea, Hmps. Ill. Het. B. M. viii. p. 50, pl. 139. f. 19 (1891);

Kirby, Cat. Het. p. 305.

Lyclene aurora, Hmps. Ill. Het. B. M. viii. p. 50, pl. 139. f. 20 (1891);

Kirby, Cat. Het. p. 305.

Head and thorax orange-yellow tinged with pink; vertex of head, shoulders, meso- and metathorax with fuscous points; abdomen ochreous. Fore wing rosy pink or orange-yellow tinged with pink; a subbasal black point; the costal edge black towards base; an antemedial series of four or five points, the one below the cell nearer the base; a medial broad line nearly straight or irregular, slightly curved and angled on vein 1; a discoidal point; a postmedial series of short streaks or points on the veins, incurved to costa, then oblique, the spots on veins 6, 4, and 1 nearer termen; a terminal series of points. Hind wing pinkish or yellow.

The type has the postmedial streaks of fore wing almost conjoined into a band.

Ab. 1. *aurora*. Fore wing with all the markings reduced and slight.

Ab. 2. *rosea*. Hind wing with indistinct oblique medial line.

Hab. NILGIRIS (*Hampson*), 1 ♂, 2 ♀, types *rosea* and *aurora*; CEYLON, Pundaloya (*Green*), 1 ♂, 2 ♀ type, Pattalam (*Pole*), 1 ♀. *Exp.* 20–26 millim.

*969. *Asura nubilalis*. (Plate XXXI. fig. 17.)

Mittochrista nubilalis, Hmps. Moths Ind. ii. p. 115 (1894).

♂. Yellow; patagia, thorax, and abdomen tinged with fuscous. Fore wing with the basal area fuscous except the base of inner margin; a broad postmedial fuscous band joining the basal fuscous area on inner area, its outer edge angled at veins 6 and 4 and on

inner margin. Hind wing with ill-defined broad fuscous post-medial band.

Hab. GANJAM (*Minchin*), 1 ♂ type + in Coll. Druce. *Exp.* 20 millim.

970. *Asura humilis*. (Plate XXXI. fig. 18.)

Cythere humilis, Wlk. ii. 544 (1859); Hmps. Moths Ind. ii. p. 115; Kirby, Cat. Het. p. 304.

Lycene semicirculata, Heyl. C. R. Soc. Ent. Belge, xxxv. p. 415 (1891).

Yellow; shoulders and mesothorax with black spots; abdomen tinged with fuscous. Fore wing with black subbasal point; the costal edge black towards base; the fuscous antemedial band formed of elongate spots in the interspaces from cell to inner margin, the spot below the cell displaced inwards; a broad postmedial band with sinuous inner edge, its outer edge dentate on veins 6 and 4. Hind wing with traces of fuscous diffused subterminal band from costa to vein 2.

Ab. 1. *semicirculata*. Fore wing with the inner edge of the post-medial band produced inwards at middle towards or to meet the antemedial band.

Hab. SIKHIM (*Dudgeon*), 1 ♂; BURMA, Moulmein (*Clerk*), 1 ♀ type, Rangoon, 1 ♀; JAVA, Preanger, type + ♂ *semicirculata* in Coll. Heylaerts. *Exp.* 22 millim.

*971. *Asura nigrivena*. (Plate XXXI. fig. 12.)

Mittochrista nigrivena, Leech, Trans. Ent. Soc. 1899, p. 196.

♂. Head, thorax, and abdomen ochreous whitish; thorax with a slight pink tinge; palpi at sides and bands on fore tibiæ and tarsi fuscous; terminal half of abdomen deeper ochreous. Fore wing crimson; the costal edge black towards base; a black point at base of cell; obliquely placed antemedial black points below costa and above vein 1; a discoidal point; fine black streaks on the veins from the cell, in submedian interspace, and on vein 1 not reaching termen. Hind wing paler crimson; cilia of both wings yellow. Underside of fore wing with large patch of black suffusion.

Hab. W. CHINA, Omei Shan, 3500 feet, type + ♂ in Coll. Leech. *Exp.* 36 millim.

972. *Asura biseriata*, n. sp. (Plate XXXI. fig. 27.)

♂. Ochreous yellow. Fore wing with subbasal black spot; an oblique antemedial series of five fuscous streaks, the streaks below cell and above inner margin displaced inwards; a discoidal spot; a postmedial series of streaks on the veins, some arising from the discoidal spot, forked on veins 6, 7 and on veins 6, 4 and 1 extending more towards termen; a terminal series of points.

Hab. BORNEO, Sandakan (*Pryor*), 1 ♂ type. *Exp.* 16 millim.

*973. *Asura disticha*. (Plate XXXI. fig. 20.)

Ammatho disticha, Meyr. Trans. Ent. Soc. 1894, p. 2.

♀. Orange-red; abdomen paler. Fore wing with black point at base; an antemedial series of four small round spots and a post-medial series of five spots. Hind wing pale crimson.

Hab. BURMA, Shán States, Koni (*Maunders*), type † in Coll. Meyrick. *Exp.* 27 millim.

974. *Asura eos*, n. sp. (Plate XXXI. fig. 19.)

Head, thorax, and abdomen orange fulvous; patagia and mesothorax with black points; fore tibiae marked with black in front. Fore wing orange, strongly tinged with crimson; the costa blackish towards base; a black point in base of cell and a subbasal series of four points, the point below the cell displaced inwards; a rather broad medial somewhat oblique line slightly bent inwards in submedian interspace; a discoidal point; a subterminal series of points, those on veins 5, 3, and 2 displaced inwards; cilia orange. Hind wing slightly tinged with crimson, the cilia orange.

Hab. JAVA, Malang (*Holz*), 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 14 millim.

*975. *Asura carnea*. (Plate XXXI. fig. 16.)

Calligenia carnea, Pouj. Bull. Soc. Ent. Fr. (6) vi. p. cxliii (1886); Kirby, Cat. Het. p. 312.

Setina rubricans, Leech, Entom. xxiii. p. 82 (1890); Kirby, Cat. Het. p. 357.

♂. Head, thorax, and abdomen dirty ochreous grey with a slight flesh tint; palpi and bands on the tibiae and fore and mid tarsi black. Fore wing dirty flesh-colour; the costal edge black towards base; a black point at base of cell; a slight antemedial point in submedian fold; an oblique fuscous medial line; a discoidal point; traces of a subterminal series of points with one more prominent on vein 5, then oblique and with a prominent spot above inner margin beyond middle. Hind wing dull ochreous flesh-colour. Underside suffused with black to beyond middle and with the subterminal series of points more prominent.

Ab. 1. *rubricans*. Fore wing with the antemedial point in submedian fold and the medial line absent.

Hab. W. CHINA, Moupin, Omeishan, Wa-shan, Chia-ting-fu, Chia-kou-ho, in Coll. Leech; C. CHINA, Chang-yang, Ichang, type † *rubricans* in Coll. Leech. *Exp.* 32 millim.

*976. *Asura unipuncta*. (Plate XXXI. fig. 15.)

Setina unipuncta, Leech, Entom. xxiii. p. 82 (1890); Kirby, Cat. Het. p. 357.

Orange-red; palpi and antennæ ochreous and fuscous; legs mostly

black; abdomen black, dorsally clothed with ochreous hair. Fore wing with prominent black discoidal spot; the costal edge black towards base. Hind wing paler; cilia of both wings yellow.

Hab. C. & W. CHINA, Chang-yang, Moupin, Kia-ting fu, type ♂ in Coll. Leech. *Exp.* 42 millim.

977. *Asura cyllետona*. (Plate XXXI. fig. 28.)

Setinochroa cyllետona, Swinh. A. M. N. H. (6) xii. p. 217 (1893); Hmps. Moths Ind. ii. p. 114.

Mitochrista geodetis, Meyr. Trans. Ent. Soc. 1894, p. 4.

♂. Orange; a streak on middle of frons and vertex of head, antennæ, spots on shoulders, patagia, meso- and metathorax black; legs mostly black; abdomen dorsally black except anal tuft. Fore wing with subbasal black point; antemedial spots below costa and cell; a round discoidal spot; a black streak on costa from just beyond middle to apex; the termen and cilia black, running inwards for a short distance on vein 1. Hind wing with discoidal black spot; the termen irregularly suffused with black; cilia black.

Hab. BURMA, Shan States, Koni, 1 ♂ type and type *geodetis*. *Exp.* 20 millim.

978. *Asura infumata*.

Setinochroa infumata, Feld. Reis. Nov. pl. 106. f. 16 (1874); Hmps.

Moths Ind. ii. p. 113; Kirby, Cat. Het. p. 342.

Setinochroa pallida, Moore, P. Z. S. 1878, p. 35; Kirby, Cat. Het. p. 342.

Setinochroa postica, Moore, P. Z. S. 1878, p. 36; Kirby, Cat. Het. p. 342.

♂. Orange-yellow. Fore wing with the costa black towards base; a subbasal black point; a discoidal spot; a subterminal series of spots, incurved to costa, the spot on vein 5 further from termen, below vein 4 oblique. Hind wing fuscous black; the costa, slight streaks on median nervure and in submedian fold, the inner area and cilia orange; a discoidal black spot. Underside of fore wing suffused with black, leaving the margins orange, the black emitting spurs on veins 6 and 4.

Ab. 1. *postica*. Hind wing with hardly any black tinge, the discoidal spot prominent.

Hab. N.W. HIMALAYAS, Dharmasala (*Hocking, Hutton*), 10 ♂, type *postica*, Manpuri, type *pallida*. *Exp.* 24 millim.

979. *Asura discisigna*.

Setina discisigna, Moore, P. Z. S. 1878, p. 35; Hmps. Moths Ind. ii. p. 113; Kirby, Cat. Het. p. 358 (♀).

Setinochroa aurantiaca, Moore, P. Z. S. 1878, p. 35, pl. 3. f. 12; Hmps.

Moths Ind. ii. p. 114; Kirby, Cat. Het. p. 342 (♂).

Mitochrista fuscifusa, Hmps. Moths Ind. ii. p. 113 (1894).

Barsine fuscifera, Swinh. A. M. N. H. (6) xiv. p. 438 (1894).

♂. Orange-yellow; vertex of head, shoulders, patagia, and mesothorax with black spots; legs mostly fuscous; abdomen dorsally

fuscous except anal tuft. Fore wing with the costal edge black; a subbasal spot; antemedial spots below costa and above vein 1; a discoidal spot; subterminal spots on veins 6, 4, 2, and 1. Hind wing with the terminal area irregularly suffused with black, running up to the cell and below the cell nearly to base. Underside of fore wing suffused with fuscous leaving the marginal areas orange, the fuscous emitting spurs on veins 6 and 4.

Ab. 1. Fore wing with the two antemedial points and the subterminal points on veins 2 and 1 hardly traceable.

♀. Fore wing with the subbasal and discoidal spots only.

Hab. ASSAM, Khásis, 2 ♂, type *aurantiaca*, 3 ♀, type and type *fuscifera*; LABUAN, 1 ♀; BORNEO, Kina Balu. *Exp.*, ♂ 26, ♀ 30 millim.

980. *Asura solita*.

Setina solita, Wlk. ii. 521 (1854); Moore, Lep. Ceyl. ii. p. 64, pl. 103. f. 8; Hmps. Moths Ind. ii. p. 112; Kirby, Cat. Het. p. 361.

Setina punctilinea, Moore, P. Z. S. 1878, p. 34; id. Lep. Ceyl. ii. p. 64, pl. 103, f. 9; Kirby, Cat. Het. p. 358.

Orange-yellow, shoulders, patagia, and mesothorax with black spots; palpi at tips and fore legs tinged with fuscous; abdomen tinged with fuscous or grey, the extremity yellow. Fore wing with subbasal black point; the costa streaked with black towards base; an antemedial series of five spots, the spot below the cell nearer the base; a medial series of points angled on median nervure; a discoidal spot; a subterminal series of points incurved below costa, the point on vein 5 further from termen, below vein 4 oblique; a terminal series of points.

Ab. 1. *punctilinea*. Fore wing with the antemedial and subterminal series of points obsolescent; the medial series obsolete.

Hab. CEYLON (*Templeton*), 1 ♂ type, (*Green*) 4 ♂, 5 ♀, type *punctilinea*. *Exp.* 24 millim.

*981. *Asura sexpuncta*.

Mittochrista sexpuncta, Hmps. Moths Ind. ii. p. 113.

♂. Ochreous. Fore wing with a black subbasal spot; a prominent spot above middle of cell; a discoidal spot with a spot below it above inner margin; two spots near middle of termen; abdomen and hind wing paler.

Hab. BURMA, Bernardmyo, 6000 feet (*Doherty*), type ♂ in Coll. Elwes. *Exp.* 26 millim.

982. *Asura dharmia*.

Setina dharmia, Moore, P. Z. S. 1879, p. 394; Hmps. Moths Ind. ii. p. 113; Kirby, Cat. Het. p. 358.

Mittochrista butleri, Leech, P. Z. S. 1888, p. 603, pl. 30. f. 14; Kirby, Cat. Het. p. 312.

Pale ochreous; palpi blackish at sides; shoulders and mesothorax with black spots; legs tinged with fuscous. Fore wing with

subbasal black point; the costal edge black towards base; an antemedial series of five spots, the one below the cell placed nearer the base; a discoidal spot; a subterminal series of spots, incurved below costa, the spot on vein 5 further from termen, oblique below vein 4.

Hab. JAPAN, Kiushiu, Loochoo, type † *butleri* in Coll. Leech; N.W. HIMALAYAS, Simla (*Harford*), 3 ♀, Kangra (*Hocking*), 7 ♂, type. *Exp.* 30 millim.

*983. *Asura modesta*. (Plate XXXI. fig. 29.)

Setina modesta, Leech, Trans. Ent. Soc. 1899, p. 200.

Ochreous yellow; palpi and antennæ slightly marked with black; shoulders with black points; legs banded with black. Fore wing with the costal edge black towards base; a black point at base of cell; obliquely placed black spots below costa and above vein 1; a black discoidal spot; a subterminal series of spots, incurved below costa and below vein 3. Hind wing rather paler.

Hab. N.W. CHINA, Kwei-chow, type † in Coll. Leech. *Exp.*, ♂ 32, ♀ 36 millim.

984. *Asura megala*, n. sp. (Plate XXXI. fig. 21.)

Ochreous; shoulders with black spots; fore and mid tibiæ and tarsi banded with black. Fore wing with the costal edge black towards base; a subbasal black spot; a discoidal spot; a subterminal series, bent inwards to costa, the spot on vein 5 further from termen, below vein 4 oblique.

Hab. CHINA, Pekin, 1 ♂, 1 ♀ type. *Exp.*, ♂ 32, ♀ 40 millim.

*985. *Asura griseata*. (Plate XXXI. fig. 22.)

Setina griseata, Leech, Trans. Ent. Soc. 1899, p. 200.

Pale grey; palpi and antennæ marked with black; shoulders, patagia, meso- and metathorax with black spots; legs banded with black; the tarsi and anal tuft brownish. Fore wing with the costal edge black towards base; a curved antemedial band from costa to just above median nervure; a spot above vein 1 and traces of a spot below it; traces of a diffused medial fuscous shade angled at lower end of cell; a discoidal black spot; a subterminal series of spots incurved below costa and vein 3 and angled inwards on vein 5; a terminal series of points; cilia yellowish. Hind wing with a slight yellowish tinge.

Hab. W. CHINA, Wa-ssu-kow, type † in Coll. Leech. *Exp.* 40 millim.

986. *Asura calamaria*.

Setina calamaria, Moore, P. Z. S. 1888, p. 392; Hmps. Moths Ind. ii. p. 115; Kirby, Cat. Het. p. 359.

Setina punctata, Elwes, P. Z. S. 1890, p. 389, pl. 32. f. 18; Kirby, Cat. Het. p. 357.

Miltochrista celidopa, Meyr. Trans. Ent. Soc. 1894, p. 3.

♀. Pale ochreous; shoulders and mesothorax with black spots;

fore tibiae banded with fuscous; extremity of tarsi fuscous. Fore wing with subbasal black point and discoidal spot.

This may be an extreme form of the female of *A. dharmia*.

Hab. N.W. HIMALAYAS, Simla (*Harford*), 1 ♀, Dalhousie, 1 ♀, Palumpore (*Hocking*), 1 ♀; SIKHIM; BURMA; BORNEO, Sandakan (*Pryer*), 1 ♀; SUMATRA; JAVA (*Horsfield*), 1 ♀. *Exp.* 24–30 millim.

987. *Asura anomala*.

Lithosia anomala, Elwes, P. Z. S. 1890, p. 383, pl. 32. f. 14; Hmps. n.

Moths Ind. ii. p. 104; Kirby, Cat. Het. p. 326.

Head and thorax crimson; palpi, pectus, legs, and abdomen fuscous black. Fore wing crimson; a black streak from base through the cell and on vein 5 to termen, with a slight pale streak below it on median nervure; veins 6, 7 with fine black streaks; cilia yellowish at tips. Hind wing fuscous black. Underside of fore wing suffused with black except the margins.

Hab. SIKHIM, 2 ♂. *Exp.* 26 millim. Type † in Coll. Elwes.

*988. *Asura rubrimargo*. (Plate XXXI. fig. 32.)

Idopterum rubrimargo, Hmps. n. Moths Ind. ii. p. 104 (1894).

♂. Head, thorax, and abdomen grey-brown; frons, tegulae, and patagia crimson. Fore wing grey-brown tinged with crimson, and with crimson fasciae on costa and inner margin; the base crimson with two black points; subbasal and antemedial oblique grey-edged black lines, the former not reaching inner margin; a prominent black spot at lower angle of cell; cilia crimson, tipped with yellow. Hind wing grey-brown tinged with crimson, the inner area pale crimson; cilia pale crimson, tipped with yellow.

Hab. SIKHIM, 1 ♂ type † in Coll. Elwes. *Exp.* 28 millim.

989. *Asura esmia*. (Plate XXXI. fig. 8.)

Mittochrista esmia, Swinh. A. M. N. H. (6) xii. p. 217 (1894); Hmps. n. Moths Ind. ii. p. 119.

Mittochrista callinoma, Meyr. Trans. Ent. Soc. 1894, p. 3.

♀. Head, thorax, and abdomen pale pink. Fore wing whitish; the veins, cell, and submedian fold with fuscous streaks; crimson streaks in the interspaces, on costa and inner margin, and the termen crimson. Hind wing pink.

Hab. BURMA, Shan States, Koni, 1 ♀ type and type *callinoma*. *Exp.* 30 millim.

990. *Asura uniformis*.

Tricholepis uniformis, Hmps. n. Ill. Het. ix. p. 86, pl. 157. f. 29 (1893); id. Moths Ind. ii. p. 121.

♀. Pale dull brown; abdomen with the last four segments thickly tufted with ochreous white hair; vertex of head and legs slightly tinged with fulvous.

Hab. CEYLON, Newera Eliya (*Green*), 1 ♀ type. *Exp.* 24 millim.

991. *Asura atrifusa*. (Plate XXXI. fig. 26.)*Asura atrifusa*, Turner. ined.

♂. Orange-yellow; palpi, fore legs, mid tibiæ and tarsi, extremities of hind tibiæ and tarsi, and anal tuft black. Fore wing with the costa black towards base; the disk tinged with black; an indistinct subterminal series of spots, the spot on vein 5 displaced inwards. Hind wing with black suffusion in the interspaces; the terminal area strongly suffused with black. Underside of fore wing suffused with fuscous except on margins.

♀ paler yellow; palpi yellow; legs with less black; wings without black markings on upperside.

Fore wing of male with vein 4 coincident with either 3 or 5; probably abnormal but possibly a sexual character.

Hab. QUEENSLAND, Brisbane (Turner), 1 ♂, 1 ♀, type † in Coll. Turner. *Exp.* 26 millim.

992. *Asura uniformecla*, n. sp. (Plate XXXI. fig. 7.)

Uniform straw-yellow; legs slightly tinged with fuscous.

Hab. BORNEO, Sandakan (Pryer), 1 ♀; TALAUT, 1 ♂ type; SANGIR, 1 ♀ (Doherty); SOLOMON Is. (Raynor), 1 ♀. *Exp.*, ♂ 22, ♀ 24 millim.

993. *Asura frigida*. (Plate XXXI. fig. 25.)

Doliche frigida, Wlk. ii. 530 (1854); Swinh. Cat. Het. Mus. Oxon, p. 103; Hmps. Moths. Ind. ii. p. 107; Kirby, Cat. Het. p. 301.

Lycene diffusa, Wlk. Journ. Linn. Soc., Zool. vi. p. 111 (1862).

White; head and thorax tinged with brown; fore legs tinged with brown; abdomen often dorsally suffused with brown. Fore wing with two obscure brown spots on basal part of costa and another in and below cell, sometimes conjoined to the second spot; a more or less prominent and complete antemedial band excurved at middle and not reaching inner margin, conjoined in cell to the broad postmedial band, its outer edge emitting spurs to near termen at veins 6 and 4; a curved postmedial series of points on it, with others on its inner side on inner area or a nearly complete series; cilia with slight brown spots. Hind wing with the termen tinged with brown, especially towards apex.

Hab. SIKHIM (*Lidderdale*), 1 ♂; ASSAM, Nāga Hills; BURMA, Moulmein (*Clerk*), 1 ♀ type, Rangoon (*Scott*), 1 ♀; BORNEO, Sarawak (*Wallace*), 1 ♂; Pulo Laut (*Doherty*), 1 ♂; SUMATRA; JAVA. *Exp.*, ♂ 20, ♀ 26 millim. Type † *diffusa* in Mus. Oxon.

994. *Asura hilaris*.

Doliche hilaris, Wlk. ii. 530 (1854); Moore, Lep. Ceyl. ii. p. 61, pl. 104. f. 6; Hmps. Moths Ind. ii. p. 106; Kirby, Cat. Het. p. 301.

White; palpi and antennæ brown; vertex of head, tegulæ, patagia, mesothorax, and tibiæ and tarsi with brown spots. Fore wing with brown spots at base of costa and cell; subbasal spots on costa and

below cell; an antemedial line angled inwards on median nervure and vein 1 and outwards in submedian fold; a medial line slightly angled inwards to the antemedial line in cell and incurved to inner margin; a discoidal blackish spot; the postmedial line bent outwards below costa, then dentate, strongly angled inwards on vein 2, then bent outwards to inner margin; a subterminal line interrupted above and below middle, expanding into elongate spots at costa and veins 6 and 4 and into a spot on inner margin; cilia with brown spots. Hind wing with the termen slightly tinged with brown, especially towards apex.

Hab. CEYLON (*Templeton*), 2 ♂, 1 ♀, type, Dickoya (*Green*), 1 ♂, 1 ♀. *Exp.* 26 millim.

995. *Asura bizonoides*.

Lyclene bizonoides, Wlk. Journ. Linn. Soc., Zool. vi. p. 111 (1862); Swinh.

Cat. Het. Mus. Oxon. p. 101; Kirby, Cat. Het. p. 301.

Selina tibada, Snell. in Veth's Midden-Sumatra, Lep. p. 37, pl. iii. f. 15 (1880); Kirby, Cat. Het. p. 310.

White; palpi and antennæ brownish; vertex of head, tegulæ, patagia, meso- and metathorax spotted with brown; fore and mid tibiæ and tarsi banded with brown. Fore wing with brown spots at base of costa and cell; subbasal spots on costa and below cell; a curved antemedial band; an elliptical spot in end of cell; a postmedial band with irregularly dentate inner edge curved from costa to submedian fold, then acutely angled inwards to the antemedial line, then bent outwards again, often interrupted near the medial line; subterminal spots at costa and veins 6, 4, and 1; cilia brown or spotted with brown.

The form from Sandakan is much smaller than the Sarawak and Sumatra specimens.

Hab. PERAK; SUMATRA, type † *tabida* in Coll. Snellen; BORNEO, Sandakan (*Pryer*), 1 ♂, 1 ♀, Sarawak (*Wallace*), 1 ♀. *Exp.*, ♀ 28 millim., ♂ ♀ from Sandakan, 20 millim. Type † in Mus. Oxon.

Genus LYMANTRIOPSIS, nov.

Type, *L. lacteata*.

Proboscis aborted, minute; palpi slender, not reaching beyond the frons; antennæ of male serrate; fore and mid tibiæ and tarsi clothed with long hair. Fore wing short, the apex rounded; vein 2 from just beyond middle of cell; 3 from well before angle; 5 from just below middle of discocellulars; 6 from well below upper angle; 7, 10, 11 stalked; 8, 9 absent. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell; scaling of wings rough.

*996. *Lymantriopsis lacteata*.

Nudaria lacteata, Holland, Psyche, vi. p. 412 (1893).

♂. White; palpi and lower part of frons brownish; antennæ yellowish; fore and mid tibiæ and tarsi with dark brown patches; anal tuft yellowish. Fore wing with diffused brownish subbasal

line; the diffused antemedial line excurved from below costa to submedian fold; a diffused brownish patch in lower end of cell and a discoidal point; the diffused postmedial line obsolescent towards

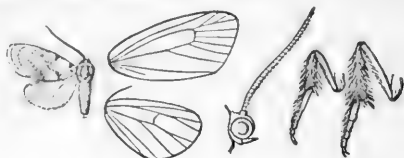


Fig. 346.—*Lymantriopsis lacteata*, ♂. $\frac{1}{2}$.

costa, excurved beyond the cell, then oblique; traces of a sub-terminal line. Hind wing tinged with yellowish towards termen.

Hab. W. AFRICA, Ogové River. Type ♂ in Coll. Holland. *Exp.* 16 millim.

Genus PAIDIA.

Type.

Paidia, Hübn. Verz. p. 159 (1827) *murina*.

Proboscis absent; palpi porrect to well beyond the frons, and roughly scaled; antennæ of male serrate; tibiæ with spurs moderate; wings sparsely clothed with hairlike scales. Fore wing rather broad, the costa arched, the apex rounded; the cell long; vein 2 from middle of cell; 3 from well before angle; 5 from above angle; 6 from upper angle; 7, 8 stalked, 9 absent; 10, 11 from cell. Hind wing with the cell long; vein 2 from middle; 3, 4 stalked; 5 from well above angle; 6, 7 stalked; 8 from before middle of cell.

997. *Paidia murina*.

Bombyx murina, Hübn. Beitr. Schmett. ii. (3), p. 66, pl. 2, K (1792); Esp. Schmett. iii. Suppl. p. 49, pl. 88. f. 1; Godt. Lép. Fr. iv. p. 399, pl. 40. f. 8; Staud. Cat. p. 52; Kirby, Cat. Het. p. 361.

Bombyx vestita, Hübn. Eur. Schmett. ii. f. 62 (1800).

Bombyx rica, Frey. Beitr. vii. p. 73, pl. 642. f. 3 (1848).

Nudaria cinerascens, Herr.-Schäff. Schmett. Eur. ii. p. 162, f. 143 (1855).

Nudaria murina var. *conjuncta*, Staud. Deutsch. ent. Zeit., Lep. iv. p. 249 (1891); Kirby, Cat. Het. p. 916.

Pale grey-brown; fore and hind tibiæ and tarsi fuscous above. Fore wing with the costa blackish towards base; a point at base of cell; an antemedial oblique line from costa to subcostal nervure, then

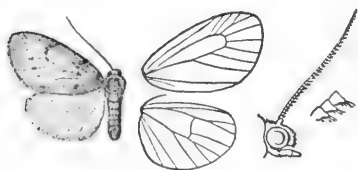


Fig. 347.—*Paidia murina*, ♂. $\frac{1}{4}$.

represented by points on the veins; a point in middle of cell just above median nervure; two small discoidal spots; an oblique postmedial line from costa to vein 6, then represented by a curved series of points on the veins. Hind wing whitish.

Ab. 1. *cinerascens*. Dull grey; fore wing with the points conjoined into lines.—Turkey; Armenia.

Ab. 2. *conjuncta*. Fore wing with the antemedial line stronger ; the point in middle of cell sometimes absent.—Mesopotamia.

Hab. FRANCE ; GERMANY, Zell. and Frey Colls. ; SPAIN ; ITALY ; HUNGARY ; GREECE ; TURKEY ; ARMENIA ; SYRIA ; MESOPOTAMIA, type † *conjuncta* in Coll. Staudinger. *Exp.*, ♂ 28, ♀ 30 millim.

Larva. Kirby, Eur. Butt. & Moths, p. 95.

Pale grey, with two subdorsal series of sulphur-yellow spots ; warts yellowish grey. Food-plant, Lichens.

Subsp. 1. *albescens*, Staud. Deutsch. ent. Zeit., Lep. iv. p. 249 (1891) ; Kirby, Cat. Het. p. 916.

Ground-colour dull white, sometimes very slightly tinged with brown.

Hab. SYRIA, Antioch, 1 ♂, 1 ♀. Type in Coll. Staudinger.

Genus APAIDIA, n. nov.

Type.

Paidia, Herr.-Schäff. Samml. Eur. Schmett. ii. p. 156 (1847),
nec Hübn. 1827 *mesogona*.

Proboscis fully developed ; palpi upturned, reaching vertex of head ; antennæ of male with bristles and cilia ; tibiæ with the spurs moderate. Fore wing with vein 2 from middle of cell ; 3, 4 stalked ; 5 from above angle ; 6 from upper angle ; 7, 8, 9 stalked ; 10 free ; 11 anastomosing with 12. Hind wing with vein 2 from towards end of cell ; 3, 4 stalked ; 5 absent ; 6, 7 stalked ; 8 from middle of cell.

- A. Ground-colour fuscous brown *mesogona*.
B. Ground-colour pale brownish grey *rufecola*.

998. *Apaidia mesogona*.

Callimorpha mesogona, Godt. Lép.
Fr. iv. p. 396, pl. 40. f. 6 (1822) ;
Herr.-Schäff. Samml. Eur. Schmett.
ii. p. 156. f. 60 ; Staud. Cat. p. 52 ;
Kirby, Cat. Het. p. 363.



Fig. 348.—*Apaidia mesogona*, ♂. †.

at vein 3 retracted to origin of vein 2.

Hab. CENTRAL FRANCE, 3 ♂, 1 ♀, Zell. Coll. *Exp.* 24 millim.

*999. *Apaidia rufecola*.

Lithosia rufecola, Ramb. Ann. Soc. Ent. Fr. i. p. 271, pl. 8. f. 12 (1832) ;
Boisd. Icones, ii. p. 109, pl. 58. f. 6 ; Dup. Lép. Fr. Suppl. iii. p. 36,
pl. 3. ff. 1, 2 ; Kirby, Cat. Het. p. 363.

Pale brownish grey ; head and thorax suffused with brown. Fore wing strongly irrorated with brown ; the costal edge blackish towards base ; an oblique brown striga below the cell just before middle, a short streak on vein 1, and a slight spot on inner margin ;

a short brown line from middle of costa angled inwards on subcostal nervure, then outwards to the point at upper angle of cell; short streaks on vein 5 beyond the cell and on base of veins 3, 4. Hind wing pale brownish.

Hab. CORSICA; ITALY. *Exp.* 26 millim.

Genus **NUDINA.**

Type.

Nudina, Stand. Rom. Mém. Lép. iii. p. 187 (1887)..... *artaxidia*.

Proboscis fully developed; palpi upturned, short; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs moderate. Fore wing rather broad; vein 2 from middle of cell; 3, 4 stalked; 5 from angle in male, shortly stalked with 3, 4 in female; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 free. Hind wing with vein 2 from well before angle of cell; 3, 4 stalked; 5 from just above angle in male, shortly stalked with 3, 4 in female; 6, 7 separate; 8 from towards end of cell.

1000. *Nudina artaxidia*.

Mitochrista artaxidia, Butl. Trans. Ent. Soc. 1881, p. 8; Kirby, Cat. Het. p. 305.

Nudaria nubilosa, Stand. Rom. Mém. Lép. iii. p. 186, pl. 10. f. 10 (1887).

Yellow; abdomen whitish. Fore wing yellow; a fuscous spot in middle of cell; a broad postmedial fuscous band from below costa, its upper edge with a shallow fork, its inner edge produced on



Fig. 349.—*Nudina artaxidia*, ♂. 1.

inner area to before middle, its outer edge sinuous. Hind wing paler, with obscure diffused fuscous subterminal band.

Hab. AMUR, type † *nubilosa* in Coll. Staudinger; JAPAN, Tokio (*Fenton*), 1 ♂ type, Okoyama (*Pryer*), 1 ♂. *Exp.* 28 millim.

Genus **NEPHELOMILTA**, nov.

Type, *N. suffusa*.

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons; antennæ of female ciliated; tibiæ with the spurs short. Fore wing with vein 2 from beyond middle of cell, oblique; 3 from before angle; 4, 5 stalked; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from long above angle; 6, 7 stalked; 8 from middle of cell.

1001. *Nephelomilta suffusa*.

Ly tene suffusa, Hmps. Ill. Het. viii. p. 49, pl. 139. f. 18 (1891); id. Moths Ind. ii. p. 111; Kirby, Cat. Het. p. 305.

♀. Head and thorax flesh-pink; antennæ with a dark band near

base; abdomen fuscous, with ochreous anal tuft. Fore wing flesh-pink; a blackish subbasal spot; the costa streaked with black towards base; an antemedial line angled in cell, then oblique; a rather diffused oblique medial line, connected in cell with the antemedial line; a discoidal lunule; a postmedial diffused band slightly bent inwards to costa and outwards to inner margin, with a series of obscure spots beyond it, the spots below costa and vein 5 larger; a terminal series of points. Hind wing pinkish, with diffused oblique antemedial line, almost confluent with the fuscous suffusion on postmedial area, which extends nearly to termen; a discoidal lunule.

Fig. 350.—*Nepheломilta suffusa*, ♀. $\frac{1}{2}$.

Hab. NILGIRIS, W. slopes, 3000 ft. (*Hampson*), 1 ♀ type. *Exp.* 30 millim.

Genus MILTOCHRISTA.

	Type.
<i>Miltochrista</i> , Hübn. Verz. p. 166 (1827)	<i>miniata</i> .
<i>Calligenia</i> , Dup. Cat. Lep. Eur. p. 59 (1844)	<i>miniata</i> .
<i>Barsine</i> , Wlk. ii. 546 (1854)	<i>gratiosa</i> .
<i>Sesapa</i> , Wlk. ii. 547 (1854)	<i>inscripta</i> .
<i>Ammatho</i> , Wlk. iii. 759 (1855)	<i>delineata</i> .
<i>Cabarda</i> , Wlk. xxviii. 435 (1863)	<i>sequens</i> .
<i>Castabala</i> , Wlk. xxxi. 270 (1864)	<i>roseata</i> .
<i>Mahavira</i> , Moore, P. Z. S. 1878, p. 11.....	<i>flavicollis</i> .
<i>Korawa</i> , Moore, P. Z. S. 1878, p. 11.....	<i>pallida</i> .
<i>Gurna</i> , Swinh. Cat. Het. Mus. Oxon. p. 123 (1892)	<i>indica</i> .

Proboscis fully developed; palpi porrect, extending to just beyond the frons; antennæ of male with long bristles and cilia; thorax and abdomen clothed with rough hair; tibiae with the spurs moderate. Fore wing with vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free, the latter curved and approximated to 12. Hind wing with vein 2 from middle of cell; 3 from before angle; 5 from above angle, from angle, or shortly stalked with 4; 6, 7 on a long stalk; 8 from towards end of cell.

SECT. I. (*Miltochrista*). Fore wing of male with the median nervure bent upwards at extremity, the discocellulars short.

- A. Fore wing with very strongly dentate postmedial line.
 - a. Fore wing with the ground-colour white, with crimson on costal and terminal areas *ziczac*.
 - b. Fore wing with the ground-colour crimson.
 - a¹. Fore wing with subterminal series of points *dentifascia*.
 - b¹. Fore wing without subterminal series of points..... *flexuosa*.
 - c. Fore wing with the ground-colour yellow more or less suffused with crimson.
 - a¹. Fore wing with medial line.
 - a². Fore wing with the medial line angled inwards in cell to join the antemedial line *aberrans*.
 - b². Fore wing with the medial line not angled inwards in cell *roseata*.

- b*¹. Fore wing without medial line.
*a*². Fore wing with antemedial line.
*a*³. Fore wing yellow, crimson towards costa and termen *miniata*.
*b*³. Fore wing scarlet *bivittata*.
*b*². Fore wing without antemedial line *rosacea*.
B. Fore wing without dentate postmedial line *strigivenata*.

1002. *Miltochrista ziczac*.

Hypoprepia ziczac, Wlk. vii. 1681 (1856); Kirby, Cat. Het. p. 309.

Miltochrista inscripta, Butl. Ill. Het. iii. p. 7, pl. 42. f. 11 (nec Wlk.).

Miltochrista rivalis, Leech, Entom. xxiii. p. 82 (1890); Kirby, Cat. Het. p. 311.

White; palpi black, white at tips; frons and vertex of head with black spots; tegulæ and patagia with crimson patches; legs fuscous and white; abdomen tinged with fuscous. Fore wing with crimson fascia below costa, becoming costal at middle; the terminal area crimson; a fuscous spot at base of costa and a subbasal line from median nervure to vein 1; the costal edge streaked with black to the antemedial line, which is excurved below costa, then oblique and angled outwards in submedian fold; a minutely waved medial line incurved in cell; oblique black striae above end of median nervure and on discocellulars; the postmedial line arising from nearly the same point on costa as the medial line, very strongly bent outwards below costa, then oblique, extremely and irregularly dentate to submedian fold, then excurved; an obliquely curved series of black spots beyond it. Hind wing pale crimson.

Hab. CHINA, Shanghai (*Fortune*), 1 ♂, 3 ♀, Chang-yang, Moupin, Ichang, Omeishan, type † *rivalis* in Coll. Leech. *Exp.* 24–28 millim. Type † in Mus. Oxon.

1003. *Miltochrista dentifascia*. (Plate XXXII. fig. 1.)

Miltochrista dentifascia, Hmps. Moths Ind. ii. p. 108 (1894).

Crimson; palpi, pectus, legs, and ventral surface of abdomen to near extremity black. Fore wing with black point at base, three subbasal black spots below the cell; the costal edge black to the antemedial line, which is obtusely angled below costa and does not reach inner margin; a nearly straight medial line; a short oblique streak on discocellulars; the postmedial line arising from the same point on costa as the medial line, very strongly bent outwards below costa, then oblique and highly and irregularly dentate to vein 1; an obliquely curved subterminal series of black spots; cilia yellowish, fuscous at base. Hind wing paler, the cilia yellowish.

Hab. ASSAM, Khâsis, 2 ♂; BURMA, Momeit (*Doherty*), type † in Coll. Elwes. *Exp.* 25 millim.

*1004. *Miltochrista flexuosa*. (Plate XXXII. fig. 25.)

Miltochrista flexuosa, Leech, Trans. Ent. Soc. 1899, p. 196.

♂. Head, thorax, and abdomen whitish, tinged with crimson;

palpi and fore legs slightly tinged with black; pectus and legs ochreous; the ventral surface of abdomen black. Fore wing crimson; a black point at base of cell; the interspaces of subbasal area with patches of black irroration; the costa narrowly ochreous, with the costal edge black to the curved, slightly sinuous antemedial line, which is defined on each side by ochreous; an oblique sinuous medial black line on a narrow ochreous band; two short oblique black streaks in end of cell on ochreous spots; the postmedial line arising close to the medial line, strongly bent outwards below costa, then with very long acute teeth on the veins extending to near termen, and defined on each side by ochreous. Hind wing pale crimson; cilia of both wings pale yellow.

Hab. W. CHINA, Nitai, type† ♂ in Coll. Lecch, Moupin, Omeishan. *Exp.* 32 millim.

1005. *Miltochrista aberrans*.

Miltochrista aberrans, Butl. A. M. N. H. (4) xx. p. 397 (1877); id. Ill. Het. ii. p. 5, pl. 22. f. 7; Kirby, Cat. Het. p. 312.

Calligenia askoldensis, Oberth. Ét. Ent. v. p. 30 (1881); Kirby, Cat. Het. p. 312.

Head and thorax yellow, shoulders and patagia with black points; fore coxæ tinged with crimson, the tibiæ banded with black; abdomen fuscous, greyish towards base, the extremity ochreous. Fore wing orange-red; a black point at base; two obliquely-placed subbasal black points below the cell; the costal edge black to the antemedial line, which is strongly angled in cell; a medial line angled inwards in cell to meet the antemedial line, then excurved; a discoidal point; the postmedial line arising from the same point on costa as the medial line, very strongly bent outwards below costa, then oblique, extremely and irregularly dentate, and bent outwards to inner margin; a curved subterminal series of short dark streaks. Hind wing yellow, strongly tinged with crimson.

Ab. 1. *askoldensis*. Fore wing with the medial line almost obsolete.

Hab. AMUR; JAPAN, Yokohama (*Jonas*), 2 ♂ type, Tokio (*Fenton*), 1 ♀, Kioto (*Lewis*), 1 ♂. *Exp.* 26 millim.

1006. *Miltochrista rosaria*.

Miltochrista rosaria, Butl. A. M. N. H. (4) xx. p. 397 (1877); id. Ill. Het. B. M. ii. p. 6, pl. 22. f. 8 (1878); Kirby, Cat. Het. p. 312.

Ochreous; palpi black at tips; tibiæ banded with black. Fore wing with pale crimson fascia from base below costa, becoming costal after the middle; the terminal area suffused with crimson; a subbasal black point; the costal edge black to the antemedial line, which is acutely angled outwards in cell and slightly on vein 1, then obsolete; a medial line slightly angled inwards in cell and retracted to inner margin; a discoidal point; the postmedial line very strongly bent outwards below costa, then oblique and highly dentate to vein 1; a curved, more or less prominent, series of black spots from below

costa to vein 1. Hind wing slightly tinged with crimson towards termen.

Hab. JAPAN, Yokohama (*Pryer*), 1 ♂ type (*Jonas*), 1 ♀. *Exp.* 28 millim.

1007. *Miltochrista miniata*.

Geometra miniata, Forst. Nov. Spec. Ins. p. 75 (1771); Steph. Ill. Brit. Ent., Haust. ii. p. 90; Stand. Cat. p. 52; Kirby, Cat. Het. p. 311.

Bombyx rosea, Fabr. Syst. Ent. p. 587 (1775); Esp. Schmett. iii. p. 386, pl. 77. ff. 1-3; Godt. Lép. Fr. iv. p. 383, pl. 39. ff. 5-6.

Noctua rubicunda, Schiff. Wien. Verz. p. 68 (1776); Hübn. Eur. Schmett. ii. f. 111.

Calligenia crocea, Bign. Bull. Soc. Ent. Fr. (5) x. p. cv (1880).

Head and thorax yellow; palpi at tips and extremities of tibiæ and tarsi fuscous; abdomen of male tinged with black towards extremity above and on ventral surface. Fore wing yellow, a subbasal black point; the costal edge black towards base; a crimson fascia below the costa, becoming costal on terminal half; the terminal area crimson; a fine black antemedial line angled in and below cell, obsolescent towards inner margin, and often almost entirely obsolete; a discoidal black point; an oblique, very strongly and rather irregularly dentate, postmedial line from below costa to vein 1; a



Fig. 351.—*Miltochrista miniata*, ♂. 1.

subterminal series of black points. Hind wing pale yellow, tinged with crimson towards termen.

Ab. 1. *crocea*. Wings with the crimson replaced by orange.

Hab. C. & S. EUROPE, Zell. and Frey Colls.; DALMATIA; RUSSIA; E. SIBERIA; JAPAN, Yezo, Hakodaté (*Andrews*), Tokio (*Fenton*). *Exp.* 24-32 millim.

Larva. Meyr. Brit. Lep. p. 30; Barrett, Lep. Brit. ii. p. 201, pl. 66. f. 3.

Deep greyish ochreous, hairs blackish grey. Food-plant, Lichens; 8-5.

1008. *Miltochrista bivittata*. (Plate XXXII. fig. 5.)

Miltochrista bivittata, Butl. Cist. Ent. iii. p. 116 (1885); Kirby, Cat. He . p. 312.

♂. Head, thorax, and abdomen orange-yellow. Fore wing orange suffused with scarlet; the costal edge black towards base; a subbasal black spot below the costa; the antemedial line strongly angled in cell, then oblique, and with two short streaks before it below the cell; a discoidal point; the postmedial line outwardly

oblique below costa, with a short tooth on vein 10, long teeth on veins 7 to 4, then inwardly oblique, with short teeth on veins 3 and 2, and bent outwards again below submedian fold; a curved subterminal series of points. Hind wing pale crimson; cilia of both wings yellow.

Hab. JAPAN, Niigata (*Lewis*), 1 ♀ type. *Exp.* 20 millim.

1009. *Miltochrista rosacea*.

Calligenia rosacea, Brem. Bull. Acad. St. Pét. iii. p. 476 (1861); Lep. Ost-Sib. p. 37, pl. 3. f. 14; Kirby, Cat. Het. p. 312.

Miltochrista undulata, Leech, Trans. Ent. Soc. 1899, p. 191.

♂. Head, thorax, and abdomen ochreous; tegulæ and patagia tinged with pink; palpi, fore legs, extremities of mid and hind tibiæ, and ventral surface of abdomen tinged with black. Fore wing ochreous, tinged with pink except the costa; a broad fascia just below costa and a terminal band bright scarlet; the costal edge black towards base; a black point at base of cell; antemedial and medial converging black striæ on costa; a very oblique and highly dentate postmedial black line from the costal fascia to submedian fold; a curved subterminal series of black points; cilia ochreous. Hind wing ochreous tinged with pink, strongly on terminal half; cilia ochreous.

Fore wing with the median nervure slightly bent upwards at extremity and the cell slightly narrowed.

Hab. AMUR, 1 ♂; C. CHINA, Chang-yang, type † *undulata* in Coll. Leech.

*1010. *Miltochrista strigivenata*. (Plate XXXII. fig. 32.)

Miltochrista strigivenata, Hmps. Moths Ind. ii. p. 107 (1894).

♂. Head and thorax crimson; antennæ towards tips and the greater part of legs black; abdomen black, pinkish at base and extremity. Fore wing with the basal half of costal edge black; a straight oblique medial black line; the veins of terminal area finely streaked with black. Hind wing slightly paler, with fine black streaks on veins of terminal area towards apex; cilia of both wings yellow.

Hab. ASSAM, Nāga Hills, 6000 feet (*Doherty*), type † in Coll. Elwes. *Exp.* 25 millim.

SECT. II. (*Cabarda*). Fore wing of male with a slight lobe and fold on upperside of costa just beyond middle, fringed with hair.

1011. *Miltochrista sequens*.

Lyclene sequens, Wlk. Journ. Linn. Soc., Zool. vi. p. 112 (1862); Kirby, Cat. Het. pp. 301, 914.

Cabarda molliculana, Wlk. xxviii. 435 (1863).

White; tegulæ, patagia, and thorax spotted with yellow-brown;

legs banded with brown ; terminal half of abdomen of male black. Fore wing with subbasal yellow-brown spot on costa and elongate



Fig. 352.—*Miltochrista sequens*, ♂. ¾.

patch below the cell ; an antemedial line expanding somewhat below costa, then incurved ; a medial line expanding at middle and inner margin ; a discoidal spot ; the postmedial line arising from close to medial line, strongly bent outwards below costa, with two spots above it on costa, coalescing with the 2nd, then curved and irregularly dentate below the cell to near the median line and fine towards inner margin ; a curved subterminal series of short streaks, their bases coalescing except at vein 5 ; the costa brown towards apex ; a series of spots on termen and cilia.

Ab. 1. Abdomen of male with the terminal half not black.—Sumatra.

Hab. BORNEO, Sandakan (*Pryer*), 2 ♂, 3 ♀, Sarawak (*Wallace*), 1 ♂, 3 ♀, type *molliculana* ; SUMATRA. *Exp.* 22 millim. Type † in Mus. Oxon.

SECT. III. Fore wing of male normal.

A. (*Mahavira*). Antennæ of male serrate, with very long bristles and fascicles of cilia.

1012. *Miltochrista flavicollis*.

Mahavira flavicollis, Moore, P. Z. S. 1878, p. 11, pl. i. f. 3 ; Hmps. Moths Ind. ii. p. 69 ; Kirby, Cat. Het. p. 315.

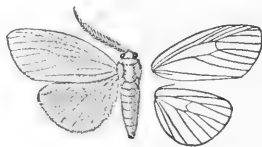


Fig. 353.—*Mahavira flavicollis*, ♂. ½. (From Moths Ind. vol. ii.)

♂. Pure white ; antennæ brown ; tegulæ yellow. Fore wing with the veins brownish.

Hab. SIKHIM, Moore Coll., 1 ♂ type. *Exp.* 36 millim.

B. Antennæ of male with bristles and cilia.

a. (*Gurna*). Hind tibiae of female with the medial spurs absent.

1013. *Miltochrista indica*.

Dysauxes indica, Moore, P. Z. S. 1879, p. 390 ; Swinh. Cat. Het. Mus. Oxon. p. 124 ; Hmps. Moths Ind. ii. p. 105 ; Kirby, Cat. Het. p. 108.

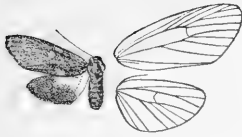


Fig. 354.

Miltochrista indica, ♂. ♀.
(From *Moths Ind.* vol. ii.)

♂. Dark brown; frons and patagia, except at base, orange; anal tuft orange. Fore wing with slight orange mark at base of inner margin; a rounded spot in end of cell extending to just below costa, with a similar spot below it on inner margin. Hind wing orange-yellow with terminal fuscous band at costa, narrowing to tornus.

♀. Fore wing with the spot often not extending above cell; hind wing with the terminal band broader.

Hab. BOMBAY (*Swinhoe*), 6 ♀; BELGAUM (*Watson*), 3 ♂. *Exp.*, ♂ 22, ♀ 34 millim. Type † in Mus. Oxon.

b. (*Barsine*). Hind tibiae of female with two pairs of spurs.

*a*¹. Fore wing with highly and irregularly dentate postmedial line.

*a*². Fore wing with the cilia blackish.

*a*³. Fore wing deep red; hind wing black..... *inscripta*.

*b*³. Fore and hind wings yellow.

*a*⁴. Fore wing with the medial line angled inwards to join the antemedial line at middle *decussata*.

*b*⁴. Fore wing with the medial line bent outwards at middle *complicata*.

*b*². Fore wing with the cilia yellow.

*a*³. Fore wing with irregularly dentate medial line..... *rivulosa*.

*b*³. Fore wing without medial line .. *calamina*.

*b*¹. Fore wing without highly and irregularly dentate postmedial line.

*a*². Fore wing with the cilia blackish.

*a*³. Fore wing with the cilia black near middle only..... *cardinalis*.

*b*³. Fore wing with the cilia wholly black.

*a*⁴. Fore wing without postmedial line *sanguinea*.

*b*⁴. Fore wing with postmedial line.

*a*⁵. Hind wing black, with yellow fascia on basal half of costa..... *postnigra*.

*b*⁵. Hind wing yellow or crimson.

*a*⁶. Hind wing with terminal fuscous band.

*a*⁷. Fore wing with medial line.

*a*³. Fore wing with the medial line angled inwards to the antemedial line in cell and submedian fold *sanguitincta*.

*b*⁴. Fore wing with the medial line angled outwards to the antemedial line in cell only *punicea*.

*c*⁸. Fore wing with the medial line not angled inwards to the antemedial line *plumbilineata*.

*b*⁷. Fore wing without medial line ... *lineata*.

- b*⁶. Hind wing without terminal fuscous band, the veins of terminal area often streaked with black.
- a*⁷. Fore wing crimson or with crimson markings.
- a*⁸. Fore wing with the medial line angled outwards to join the postmedial line just below costa. *rutila*.
- b*⁸. Fore wing with the medial line not angled outwards below costa.
- a*⁹. Fore wing with the medial line strongly angled inwards in cell to join or almost join the antemedial line.
- a*¹⁰. Fore wing with the medial line strongly angled inwards in submedian fold *cuneonotata*.
- b*¹⁰. Fore wing with the medial line not angled inwards in submedian fold.
- a*¹¹. Fore wing with the postmedial line minutely dentate ... *exclusa*.
- b*¹¹. Fore wing with the postmedial line not dentate.
- a*¹². Fore wing suffused with crimson *cruciata*.
- b*¹². Fore wing yellow with crimson streaks in the interspaces
- a*¹³. Fore wing with the medial line strongly bent outwards below cell..... *inflexa*.
- b*¹³. Fore wing with the medial line hardly bent outwards below cell. *euprepia*.
- b*⁹. Fore wing with the medial line not angled inwards in cell.
- a*¹⁰. Fore wing without crimson spots in the interspaces.
- a*¹¹. Fore wing with the medial line arising from the same point on costa as the postmedial line *delineata*.
- b*¹¹. Fore wing with the medial line well separated from the postmedial line at costa..... *mesortha*.
- b*¹⁰. Fore wing with crimson spots in the interspaces, the medial line becoming coincident with the antemedial line below median nervure *delicia*.
- b*⁷. Fore wing without crimson markings.
- a*⁴. Fore wing with the streaks beyond postmedial line not reaching termen *scripta*.
- b*⁴. Fore wing with the streaks beyond postmedial line reaching termen.
- a*⁹. Fore wing with the postmedial line acutely angled at vein 6... *multistriata*.

- b*³. Fore wing with the postmedial line not angled at vein 6..... *hypoprepoides*.
*b*². Fore wing with the cilia not blackish.
*a*³. Fore wing fuscous with yellow spots, lines, and termen..... *roseata*.
*b*³. Fore wing not fuscous.
*a*¹. Fore wing with crimson spots and streaks in the interspaces.
*a*⁵. Fore wing with the postmedial line excurved beyond cell.
*a*⁶. Fore wing with the medial line angled inwards in cell *duopunctata*.
*b*⁶. Fore wing with the medial line not angled inwards in cell *gratiosa*.
*b*⁵. Fore wing with postmedial band with oblique sinuous inner edge.
*a*⁶. Fore wing with the terminal interspaces streaked with crimson *curtisi*.
*b*⁶. Fore wing without crimson streaks in terminal interspaces..... *rubricostata*.
*b*⁴. Fore wing with the markings edged with crimson, and with a terminal series of spots *coecinea*.
*c*⁴. Fore wing without crimson spots and streaks.
*a*⁵. Fore wing with the veins of terminal area streaked with black.
*a*⁶. Fore wing with subbasal series of spots.
*a*⁷. Fore wing with series of spots just beyond the antemedial series.
*a*⁸. Fore wing pure white with medial yellow band *eccentropis*.
*b*³. Fore wing with the ground-colour yellowish *maculifasciata*.
*b*⁷. Fore wing with medial series of spots.
*a*⁴. Fore wing with the postmedial line slightly bent outwards beyond upper angle of cell....
*a*⁶. Fore wing with the postmedial line dentate on veins 3, 4 *nigralba*.
*b*⁹. Fore wing with the postmedial line not dentate on vein 3..... *fasciata*.
*b*³. Fore wing with the postmedial line strongly dentate beyond upper angle of cell *radians*.
*c*⁷. Fore wing with continuous or almost continuous medial line.
*a*⁸. Fore wing with continuous or almost continuous postmedial line.
*a*⁹. Fore wing with the postmedial line not dentate at vein 6 *zebrina*.
*b*⁹. Fore wing with the postmedial line strongly dentate at vein 6... *prominens*.
*b*⁸. Fore wing with the postmedial line reduced to a series of points. *delicata*.
*b*⁶. Fore wing without subbasal series of spots *linga*.

- b*⁵. Fore wing with the veins of terminal area not streaked with black.
*a*⁶. Fore wing with purplish fuscous streaks in the interspaces beyond the postmedial line *phæoxanthi*
*b*⁶. Fore wing without fuscous streaks beyond the postmedial line.
*a*⁷. Fore wing with minutely dentate postmedial line *multidentata*.
*b*⁷. Fore wing without dentate postmedial line.
*a*⁸. Fore wing with medial line.
*a*⁹. Fore wing with ante- and postmedial lines *vagilinea*.
*b*⁸. Fore wing without ante- and postmedial lines..... *proleuca*.
*b*⁸. Fore wing without medial line.
*a*⁹. Fore wing with postmedial series of points.
*a*¹⁰. Patagia and base of fore wing with black spots..... *spilosomoides*.
*b*¹⁰. Patagia and base of fore wing without black spots *magna*.
*b*⁹. Fore wing with subterminal series of points *pallida*.
*c*⁹. Fore wing without series of points.
*a*¹⁰. Fore wing orange tinged with crimson..... *effasciata*.
*b*¹⁰. Fore wing pale ochreous *perpallida*.
*c*¹⁰. Fore wing pure white *hololeuca*.

1014. *Miltochrista inscripta*. (Plate XXXII. fig. 26.)

Sesapa inscripta, Wlk. ii. 547 (1854); Kirby, Cat. Het. p. 309.

Sesapa erubescens, Butl. Trans. Ent. Soc. 1877, p. 345.

♂. Head and thorax crimson; palpi, antennæ, and greater part of fore legs fuscous; abdomen fuscous, with the extremity pale crimson. Fore wing crimson, the margins and cilia narrowly black-brown; a black point above base of inner margin; a curved antemedial line; a nearly straight medial line; a black discoidal spot; a highly and very irregularly dentate postmedial line, retracted to costa, and erect from vein 1 to inner margin with a curved series of black points on the veins beyond it. Hind wing black-brown, the costal area suffused with crimson, the underside mostly suffused with crimson.

♀. Hind wing with series of pale crimson marks on termen in the interspaces.

Hab. CHINA, Shanghai (*Fortune*), 3 ♂, 1 ♀, type and type *erubescens*. *Exp.* 22 millim.

1015. *Miltochrista decussata*. (Plate XXXII. fig. 3.)

Miltochrista decussata, Moore, A. M. N. H. (4) xx. p. 87 (1877); Kirby, Cat. Het. p. 307.

♀. Yellow; tegulæ, mesothorax, and end of tibiæ with obscure

black spots. Fore wing with subbasal black point; two obliquely-placed antemedial points below the cell; the antemedial line strongly angled outwards in cell to the medial line, which is strongly angled inwards at that point, then excurved; a discoidal point; the postmedial line very highly and irregularly dentate from below costa to vein 2, oblique towards costa, bent outwards to inner margin, a series of short streaks on the veins beyond it, the streaks on veins 6 and 4 displaced towards termen; cilia fuscous.

Hab. CHINA, Shanghai (*Pryer*), 1 ♀ type. *Exp.* 28 millim.

1016. *Miltochrista complicata*. (Plate XXXII. fig. 27.)

Sesapa complicata, Butl. Trans. Ent. Soc. 1877, p. 344; Kirby, Cat. Het. p. 310.

♀. Ochreous yellow; vertex of head, shoulders, and patagia with black spots. Fore wing with two black points at base; an oblique subbasal series of four somewhat wedge-shaped spots; the costal edge black to the antemedial line, which is angled below costa, then oblique; a medial line close to the antemedial line and bent slightly outwards from middle of cell to submedian fold; a discoidal point; a very strongly and extremely irregularly dentate postmedial line, strongly bent outwards below costa and to inner margin, the teeth on veins 8, 7, 5, and 3 longest, a series of spots beyond it displaced outwards on veins 5 and 3; cilia black. Hind wing with diffused fuscous subterminal band.

Hab. BORNEO, Baram (*Pryer*), 2 ♀, Sarawak (*Wallace*), 1 ♀ type. *Exp.* 22 millim.

1017. *Miltochrista rivulosa*. (Plate XXXII. fig. 4.)

Siccia rivulosa, Wlk. ii. 540 (1854); Kirby, Cat. Het. p. 310.

Yellow. Fore wing with a curved subbasal series of four obscure fuscous spots; a waved antemedial line, excurved in cell, then very oblique, and with two points beyond it on inner area; an irregularly dentate medial line, angled outwards below costa and on median nervure and inwards in and below cell; a discoidal point; an irregularly and very highly dentate postmedial line, strongly bent outwards below costa and oblique below vein 3; subterminal and terminal series of points.

Hab. NATAL, Victoria (*Gooch*), 1 ♂, 2 ♀, type. *Exp.* 26 millim.

1018. *Miltochrista calamina*.

Miltochrista calamina, Butl. A. M. N. H. (4) xx. p. 396 (1877); id. Ill. Het. B. M. ii. p. 6, pl. 22. f. 10; Kirby, Cat. Het. p. 310.

Calligenia lutea, Staud. Rom. Mém. Lép. iii. p. 188 (1887); Kirby, Cat. Het. p. 312.

Pale yellow; palpi at sides and fore tibiae and tarsi tinged with fuscous. Fore wing with subbasal black spot; the costa streaked with black towards base; the antemedial black line excurved in cell and angled inwards on median nervure, then obsolescent a black

discoidal spot; the postmedial line very strongly bent outwards below costa, then oblique and highly dentate; a curved subterminal series of points; the costal area beyond the postmedial line and termen orange-yellow.

Hab. AMUR, type † *lutea* in Coll. Staudinger; JAPAN (*Jonas*), 2 ♂, 1 ♀ type, Tokio (*Fenton*) 2 ♀, Nikko (*Lewis*) 1 ♀. *Exp.* 22–24 millim.

1019. *Miltochrista cardinalis*, n. sp. (Plate XXXII. fig. 8.)

Vertex of head and thorax brilliant scarlet; palpi, frons, antennæ, pectus, legs, and abdomen black. Fore wing brilliant scarlet, with a black streak on median nervure from origin of vein 2, widening gradually to termen; cilia black near middle. Hind wing black. Underside of fore wing with the terminal area suffused with black from below costa to above inner margin, interrupted by a crimson streak on vein 4.

Hab. SIKHIM, 1 ♂, 1 ♀ (*Dudgeon*); ASSAM, Khâsis, 1 ♀. *Exp.*, ♂ 20, ♀ 28 millim.

1020. *Miltochrista sanguinea*. (Plate XXXII. fig. 2.)

Setinochroa sanguinea, Moore, A. M. N. II. (4) xx. p. 87 (1877); Kirby, Cat. Het. p. 342.

♂. Head and thorax deep crimson; palpi, a spot on frons, antennæ, pectus, and legs fuscous; abdomen fuscous, pale crimson below and at extremity. Fore wing deep crimson-red, the costa, termen, cilia, and inner margin towards tornus black; a curved postmedial series of black spots. Hind wing fuscous black, with diffused crimson fasciæ in and below cell and on inner area, and a series of spots in interspaces of terminal area. Underside crimson; both wings with subterminal maculate black line.

♀. Hind wing crimson, with diffused fuscous postmedial band.

Hab. CHINA, Shanghai (*Fortune, Pryer, J. J. Walker*), 4 ♂, 1 ♀, type. *Exp.* 20 millim.

1021. *Miltochrista postnigra*. (Plate XXXII. fig. 10.)

Miltochrista postnigra, Hmps. Moths Ind. ii. p. 118 (1894).

♂. Head and thorax orange-red; frons, vertex of head, tegulæ, patagia, meso- and metathorax with black spots; legs orange-red; abdomen black. Fore wing orange-red; a short oblique black streak from base of costa and another on inner margin to the curved antemedial line; a medial line angled inwards to the antemedial line on median nervure; the postmedial line arising from costa at medial line, strongly excurved beyond cell and conjoined by a black streak in submedian fold to the medial line, the area beyond it black with slight scarlet streaks in the interspaces. Hind wing black, with orange-red fascia on basal half of costa.

Hab. SIKHIM (*Pilcher*), 1 ♂ (*Knyvett*), 1 ♂ type † in Coll. Elwes. *Exp.* 18 millim.

1022. *Miltochrista sanguitincta*, n. sp. (Plate XXXII. fig. 16.)

♂. Head and thorax orange; palpi, antennæ, and legs tinged with crimson; frons, vertex of head, tegulæ, patagia, meso- and metathorax with black spots; abdomen orange, the terminal half tinged with crimson, the ventral surface black towards extremity. Fore wing orange, two black basal points and one subbasal; a subbasal line strongly angled outwards in cell and on vein 1, and inwards below vein 1; the antemedial line angled outwards below costa, then oblique; a medial line strongly angled inwards to the antemedial line in cell and submedian fold; the postmedial line arising from close to the medial line, strongly excurved to vein 4, then incurved, with a series of streaks on the veins beyond it, forked on veins 7, 8, and longer on 6 and 4; the costa beyond the postmedial line and the cilia black. Hind wing orange-yellow, the terminal area suffused broadly with fuscous.

Hab. BATCHIAN (*Doherty*), 1 ♂ type. *Exp.* 32 millim.

1023. *Miltochrista punicea*. (Plate XXXII. fig. 9.)

Barsine punicea, Moore, P. Z. S. 1878, p. 29; Hmps. Moths Ind. ii. p. 117; Kirby, Cat. Het. p. 308.

♀. Head and thorax orange; antennæ black; patagia and metathorax with black points; palpi and legs tinged with crimson; abdomen black, the anal tuft orange. Fore wing orange; a subbasal black point and short streak below the cell; the costa and inner margin streaked with black to the antemedial line, which is very strongly angled in cell; a medial line strongly angled inwards in cell to join the antemedial line and angled outwards in submedian fold; a discoidal point; the postmedial line arising from almost the same point on costa as the medial line, strongly bent outwards below costa and angled on veins 6 and 4, then oblique and angled inwards to the medial line in submedian fold; a series of black streaks beyond it, those on veins 8, 6, 4, and 1 longer; the costa beyond the postmedial line and the termen black. Hind wing orange tinged with crimson; the inner and terminal areas black, with some crimson streaks in interspaces near middle.

Hab. SIKHIM (*Atkinson*), 1 ♀ type, (*Dudgeon*) 3 ♀; BURMA, E. Pegu. *Exp.* 26 millim.

1024. *Miltochrista plumbilineata*, n. n. (Plate XXXII. fig. 11.)

Barsine lineata, Wlk. xxxi. 253 (1864), preocc.; Swinh. Cat. Het. Mus. Oxon. p. 108; Kirby, Cat. Het. p. 306.

♀. Head and thorax orange; antennæ towards base, palpi, and legs crimson; abdomen fuscous, greyish towards base, the anal tuft orange. Fore wing orange with leaden fuscous markings; the costa black, two black points at base; a slight sinuous fuscous antemedial line; a strong waved medial line; the postmedial line fine, from just beyond middle and slightly angled at vein 8; some subterminal dark marks and a larger spot at middle; the termen and cilia leaden fuscous. Hind wing yellow, with the terminal area fuscous, narrowing to tornus.

♂ without the orange anal tuft, the postmedial line close to the subterminal marks.

Hab. CELEBES, Menado (Wallace), 1 ♀ type † in Mus. Oxon. *Exp.* 36 millim.

1025. *Miltochrista lineata*.

Ammatho lineatus, Wlk. iii. 760 (1855); Kirby, Cat. Het. p. 308.

Setina nigrocincta, Snell. Tijds. v. Ent. xxii. p. 86, pl. 7. f. 9 (1879); Kirby, Cat. Het. p. 358.

Setina calligenoides, Snell. Tijds. v. Ent. xxii. p. 87, pl. 7. f. 10 (1879).

Head and thorax orange-red; frons and vertex of head with dark points; legs more crimson; abdomen fuscous, female with ochreous anal tuft. Fore wing orange-red, with the costa black; a slight antemedial line angled outwards in cell and on vein 1 and inwards below the cell; a prominent medial line slightly angled in cell and submedian fold; the postmedial line strongly curved, with traces of streaks on the veins beyond it, the one on vein 4 longer and more prominent; cilia black. Hind wing orange, with terminal black band narrowing to tornus, sometimes with some orange marks on it at middle.

Ab. 1. Fore wing with the postmedial line strongly incurved below vein 4 to near the medial line.—Borneo.

Ab. 2. *nigrocincta*. Yellower; fore wing with the lines almost obsolete.

Hab. PHILIPPINES, Mindanao; BORNEO, Kina Balu; SUMATRA (*Sir S. Raffles*), 1 ♀ type, Dempo, 6500 feet (*Forbes*), 1 ♀; JAVA; BALI (*Doherty*), 1 ♂; CELEBES, Minahassa. *Exp.* 30 millim.

*1026. *Miltochrista rutila*. (Plate XXXII. fig. 12.)

Barsine rutila, Wlk. xxxi. 253 (1864); Swinh. Cat. Het. Mus. Oxon. p. 107; Kirby, Cat. Het. p. 308.

♀. Head and thorax crimson; antennæ fuscous; fuscous spots on patagia and mesothorax; abdomen pale crimson. Fore wing with fuscous point at base; the antemedial line arising as a fascia from base just below costa, minutely dentate and angled in cell, then oblique; the medial line minutely dentate, angled outwards below costa and strongly just below median nervure, then oblique to vein 1; the postmedial line arising close to the medial line, with which it is connected below the costa, then strongly excurved and angled acutely inwards and connected with the medial line in submedian fold; an obscure line beyond it strongly dentate on veins 6 and 4; the costa beyond the postmedial line and the cilia black. Hind wing pale crimson, the cilia fuscous.

Hab. N. GUINEA (Wallace), 1 ♀ type † in Mus. Oxon. *Exp.* 26 millim.

1027. *Miltochrista cuneonotata*.

Ammatho cuneonotatus, Wlk. iii. 759 (1855); Moore, Lep. Ceyl. ii. p. 62, pl. 103. f. 10; Hmps. Moths Ind. ii. p. 117; Kirby, Cat. Het. p. 308.

Ammatho roscoratus, Butl. Trans. Ent. Soc. 1877, p. 341; Kirby, Cat. Het. p. 308.

Miltochrista collivolans, Butl. A. M. N. H. (5) viii. p. 380 (1881); Kirby, Cat. Het. p. 306.

Miltochrista mindorana, Semper, Schmett. Phil. ii. p. 567, pl. 59. f. 13 (1899).

Head and thorax orange tinged with crimson; palpi, antennæ, and legs crimson; vertex of head, tegulæ, patagia, and metathorax with fuscous spots; abdomen greyish at base, tinged with crimson towards extremity. Fore wing yellow, with crimson spots in the interspaces, forming more or less distinct antemedial, medial, and postmedial series and streaks on terminal area; some fuscous points at base; an obscure subbasal fuscous line angled outwards in cell and on vein 1 and inwards below the cell; the antemedial line angled outwards below costa, then oblique; the medial line angled inwards to join the antemedial line in cell, and angled again in submedian fold, sometimes joining the antemedial line; the postmedial line arising close to the medial line, excurved to vein 4, then oblique and angled inwards in submedian fold; a series of fuscous streaks on the veins beyond it, forked on veins 7, 8, longer on veins 6 and 4; the cilia fuscous. Hind wing yellowish white, more or less prominently suffused with crimson towards margins.

Ab. 1. Head, thorax, abdomen, and fore wing deeply and evenly suffused with crimson, with no trace of the spots and streaks.

Ab. 2. *roseororatus*. Fore wing slightly suffused with crimson, with hardly a trace of the spots and streaks.

Ab. 3. *collivolans*. Orange-yellow, without any crimson tinge.

Hab. SIKHIM (*Atkinson, Lidderdale*), 2 ♀; ASSAM, Naga Hills; CEYLON (*Templeton, Green*), 2 ♂, 3 ♀, type; PERAK; SINGAPORE (*Ridley*), 1 ♂; SUMATRA, 1 ♀, type *collivolans*; NIAS, 1 ♂; BORNEO, Sarawak (*Wallace*), 3 ♀, type *roseororatus*; PHILIPPINES, type † *mindorana* in Coll. Semper. *Exp.* 30-42 millim.

1028. *Miltochrista exclusiva*. (Plate XXXII. fig. 7.)

Barsine exclusiva, Butl. Trans. Ent. Soc. 1877, p. 340; Hmps. Moths Ind. ii. p. 117; Kirby, Cat. Het. p. 307.

Barsine trivittata, Moore, P. Z. S. 1877, p. 597; Kirby, Cat. Het. p. 307.

Head and thorax and abdomen orange, tinged with crimson; patagia, meso- and metathorax with fuscous marks. Fore wing orange-red; some fuscous marks at base; the costa streaked with fuscous to the antemedial line, which is strongly angled in cell, then oblique; the medial line oblique and angled inwards in cell to join the antemedial line; a discoidal point; the postmedial line minutely waved, arising from the same point as the medial line, angled on veins 6 and 4, then oblique; a diffused maculate subterminal line angled outwards on veins 6 and 4; the costa beyond the postmedial line and the cilia black. Hind wing orange tinged with crimson.

Hab. ANDAMANS, 1 ♂, 1 ♀, type *trivittata*; BORNEO, Sarawak (*Wallace*), 1 ♂ type; JAVA. *Exp.*, ♂ 24, ♀ 28 millim.

1029. *Miltochrista cruciata*.

Hypoprepia cruciata, Wlk. Journ. Linn. Soc., Zool. vi. p. 101 (1862); Hmps. Moths Ind. ii. p. 118; Kirby, Cat. Het. p. 306.

Barsine gloriosa, Moore, P. Z. S. 1878, p. 29, pl. 3. f. 16; Kirby, Cat. Het. p. 307.

Head and thorax orange-red; black points on frons, vertex of head, shoulders, patagia, and mesothorax; abdomen crimson, the terminal segments black below in male. Fore wing orange-red; a basal black point; the costa streaked with fuscous to the antemedial line, which is strongly angled in cell; a medial line strongly angled inwards in cell to meet the antemedial line, then excurved and at vein 1 slightly incurved; a postmedial line arising from the same point as the medial line, strongly excurved to vein 4, then oblique and at vein 1 slightly excurved; some fuscous streaks on the veins beyond it, forked on veins 7 and 8, longer on veins 6 and 4, and often reaching the postmedial line on veins 6 and 5; the costa beyond the postmedial line and the cilia black. Hind wing yellowish, the apical area and termen tinged with crimson; underside with fuscous marks on apical area of both wings.

Hab. SIKHIM; ASSAM, Khâsis; SUMATRA (*Forbes*), 2 ♀; BORNEO, Sarawak (*Wallace*), 2 ♂, 1 ♀, type. *Exp.* 28–30 millim. Type † *gloriosa* in Coll. Staudinger.

1030. *Miltochrista inflexa*.

Barsine inflexa, Moore, P. Z. S. 1878, p. 29, pl. 3. f. 17; Hmps. Moths Ind. ii. p. 118; Kirby, Cat. Het. p. 306.

Head and thorax orange-yellow, largely suffused with crimson; abdomen greyish tinged with crimson. Fore wing orange-yellow the veins strongly streaked with crimson, the costa and inner margin with black-brown; an antemedial dark line angled outwards in cell and connected by a dark spot with the medial line, which is angled inwards in cell, then excurved and obsolescent; the postmedial line punctiform, excurved from costa to vein 4, then inwardly oblique; cilia black-brown. Hind wing pale crimson; the cilia slightly fuscous at apex.

Hab. SIKHIM (*Dudgeon*), 1 ♂, Moore Coll. 2 ♂, 1 ♀, type; ASSAM, Khâsis, 1 ♂. *Exp.* 28 millim.

1031. *Miltochrista euprepia*, n. sp. (Plate XXXII. fig. 17.)

♂. Head and thorax yellow; palpi black, crimson at base; a black spot between antennæ, which are blackish; two black spots at back of head; tegulae, patagia, and metathorax edged with crimson; patagia, meso- and metathorax with black spots; legs and abdomen tinged with crimson; the extremities of femora, tibiae, and tarsi black. Fore wing yellow, with scarlet streaks in the interspaces; a subbasal black point; the costa black from the base to the antemedial line, which is strongly angled outwards in cell, then very oblique; the medial line oblique, angled inwards in cell to join the antemedial line, then slightly bent outwards; the postmedial line bent outwards below costa, angled at veins 6 and 4, then oblique and angled inwards on vein 2, an irregular line beyond it conjoined to it by streaks on the veins; cilia black. Hind wing tinged with crimson.

Hab. BORNEO, Kina Balu (*Waterstradt*), 1 ♂ type. *Exp.* 33 millim.

1032. *Miltochrista delineata*.

Hypoprepia delineata, Wlk. ii. 487 (1854); Kirby, Cat. Het. p. 308.

Hypocrita rhodina, Herr.-Schäff. Aussereur. Schmett. f. 438 (1855); Kirby, Cat. Het. p. 308.

Ammatho figuratus, Wlk. iii. 759 (1855).

Ammatho fuscescens, Butl. Trans. Ent. Soc. 1877, p. 343; Kirby, Cat. Het. p. 308.

Clype chinensis, Feld. Wien. Ent. Mon. vi. p. 36 (1862); Kirby, Cat. Het. p. 308.

Orange-red; extremities of femora, tibiae, and tarsi with black bands. Fore wing with the costa black; some black points at base; a slight black streak below base of median nervure; the antemedial fuscous line angled in cell and submedian fold, and sometimes conjoined at those points to the medial line, which is slightly incurved; a discoidal point; the postmedial line arising from the same point as the medial line, bent outwards and angled on veins 7 and 4, then oblique, a series of streaks on the veins beyond it, forked on veins 7, 8, and longer on veins 6 and 4; cilia black. Hind wing with slight fuscous streaks on the veins towards apex, and the cilia black.

Ab. 1. Fore wing with the streaks beyond the postmedial line run together into a patch.

Ab. 2. *fuscescens*. Fore wing with the area before the antemedial line suffused with fuscous and beyond the medial line except a patch at end of cell and termen.

Hab. CHINA, Shanghai (*Fortune, Walker*), 4 ♂, 5 ♀, type *fuscescens* and type *figuratus*, Hongkong (*Bouring*), 1 ♂, Ichang (*Hobson*), 1 ♂, 1 ♀; ? BORNEO. *Exp.* 34-40 millim. Type † *chinensis* in Coll. Rothschild.

1033. *Miltochrista mesortha*. (Plate XXXII. fig. 31.)

Miltochrista mesortha, Hmps. J. Bomb. N. H. Soc. xi. p. 440 (1897).

Scarlet, mid and hind tibiae with black patches; abdomen greyish towards base. Fore wing with the costa black; a subbasal black point and a streak below the cell to the antemedial line, which is angled outwards in cell and submedian fold; a slightly curved medial line; patches of yellow in, beyond, and below end of cell, leaving the veins red; a curved black postmedial line, oblique below vein 4, with streaks on the veins beyond it, forked on veins 7, 8, and reaching termen on veins 6 and 4; termen and cilia black. Hind wing paler crimson, yellowish towards costa; traces of medial and diffused postmedial lines prominent on underside and not reaching inner margin; cilia black from apex to vein 2.

Hab. ASSAM, Khâsis, 1 ♂, 1 ♀ type. *Exp.*, ♂ 20, ♀ 30 millim.

1034. *Miltochrista delicia*.

Barsine delicia, Swinh. Trans. Ent. Soc. 1891, p. 477, pl. 19. f. 12; Hmps. Moths Ind. ii. p. 119.

♂. Head and thorax yellow; palpi blackish towards tips; tegulae and patagia edged with crimson; legs crimson; vertex of head, patagia, meso- and metathorax, fore tibiae and tarsi with fuscous

spots; abdomen crimson. Fore wing yellow, with two dark points at base; an antemedial dark line angled on median nervure, then punctiform and almost confluent with the oblique medial line; the postmedial line minutely dentate, strongly angled on vein 5, then oblique; a series of dark points beyond it, on veins 5 and 6 becoming streaks connected with the line; series of crimson spots on basal area, before the costal part of medial line on medial area, and a spot beyond the cell; a series of spots beyond the postmedial line, well separated from the subterminal series of streaks; cilia fuscous. Hind wing crimson.

Hab. ASSAM, Khâsis, 1 ♂ type; SUMATRA. *Exp.* 30 millim.

1035. *Miltochrista scripta*.

Barsine scripta, Wlk. xxxi. 254 (1864); Swinh. Cat. Het. Mus. Oxon. p. 108; Kirby, Cat. Het. p. 396.

Hypocrita meander, Snell. Tijd. v. Ent. 1879, p. 88, pl. 7. f. 11; Kirby, Cat. Het. p. 309.

Yellow; palpi at sides, and antennæ, except towards base, tinged with fuscous; frons, vertex of head, tegulæ, patagia, and mesothorax with black spots; abdomen of male blackish at extremity below. Fore wing with two black points at base and one subbasal; a subbasal line very acutely angled outwards in cell and on vein 1 and inwards below the cell; an antemedial line excurved below costa, then oblique; a medial line incurved in cell and angled inwards in submedian fold; the postmedial line arising from close to medial line, strongly excurved from below costa to vein 4, then incurved, a series of streaks on the veins beyond it, forked on veins 7, 8, and those on veins 6 and 4 longer; the costa beyond the postmedial line and the cilia black. Hind wing with fine dark terminal line towards apex.

Hab. CELEBES, Minahassa, 1 ♂, Makassar (*Wallace*), 1 ♂ type † in Mus. Oxon., type † ♀ *meander* in Coll. Snellen. *Exp.* 38 millim.

*1036. *Miltochrista multistriata*. (Plate XXXII. fig. 6.)

Miltochrista multistriata, Hmps. Moths Ind. ii. p. 109 (1894).

♂. Head, thorax, and abdomen orange; palpi, frons, antennæ, and a spot between their bases blackish; tegulæ, patagia, meso- and metathorax with black spots; legs banded with black; wings white, yellowish towards base. Fore wing with the basal half of costal edge black; a subbasal black spot; an antemedial series of three black spots with a line beyond them, curved inwards below them and not reaching inner margin, and followed by a sinuous medial line; a black discoidal spot; a postmedial dentate line emitting long teeth on veins 7 and 3, and incurved below costa and above inner margin; the veins of terminal area streaked with black. Hind wing with obscure medial line; the veins of terminal area streaked with black and with some diffused black between them.

Hab. Assam, Naga Hills (*Doherty*), type † ♂ in Coll. Elwes. *Exp.* 22 millim.

1037. *Miltochrista hypoprepioides*.

Lithosia hypoprepioides, Wlk. Journ. Linn. Soc., Zool. vi. p. 106 (1862); Swinh. Cat. Het. Mus. Oxon. p. 109, pl. 3. f. 22; Kirby, Cat. Het. p. 305.

Yellow; palpi at sides and antennæ blackish; shoulders, meso- and metathorax, and tibiæ with black spots. Fore wing with sub-basal black spot, short streaks below costa and cell and above vein 1 before the antemedial line, which is strongly angled in cell to the medial line and is then very oblique; the costal edge black to the antemedial line; the medial line slightly sinuous and excurved below the cell; a discoidal spot; the postmedial line erect towards costa and inner margin, acutely angled on vein 4, the veins beyond it strongly streaked with black; the costa beyond the postmedial line and the cilia black. Hind wing with slightly curved medial line; the terminal area fuscous, with slight ochreous spots in the interspaces.

Hab. BORNEO, Sandakan (*Pryer*), 1 ♂, Sarawak (*Wallace*), type† ♀ in Mus. Oxon. *Exp.*, ♂ 22, ♀ 26 millim.

1038. *Miltochrista roseata*.

Castabala roseata, Wlk. xxxi. 271 (1864); Butl. Ill. Het. v. p. 40, pl. 87. f. 1; Hmps. Moths Ind. ii. p. 53; Kirby, Cat. Het. p. 351.

Head and tegulæ crimson; antennæ fuscous; thorax purplish fuscous, with a crimson band across mesothorax; legs mostly black; abdomen crimson, with ventral black bands on median segments. Fore wing fuscous; an orange-red subbasal line from costa to submedian fold, where it nearly joins a patch at base of inner margin; antemedial and medial orange-red spots on costa; an antemedial line from cell to inner margin; a spot in cell just above origin of vein 2; a postmedial line expanding at costa and excurved between veins 5 and 2; a terminal band expanding at apex and continued on costa to the postmedial line. Hind wing crimson, with very broad terminal fuscous band from costa to submedian fold. Underside of fore wing with ill-defined antemedial and a medial crimson band; hind wing with fuscous bar from middle of costa to below cell.

Hab. SIKHIM (*Hearsey*), 1 ♂ type, (*Lidderdale*) 1 ♂, 1 ♀. *Exp.*, ♂ 52, ♀ 56 millim.

1039. *Miltochrista duopunctata*. (Plate XXXII. fig. 13.)

Miltochrista duopunctata, Semper, Schmett. Phil. ii. p. 508 (1899).

♀. Ochreous yellow; vertex of head, tegulæ, patagia, shoulders, and mesothorax with black spots; patagia tipped with crimson. Fore wing with two black points at base and one subbasal; a crimson streak below the cell and vein 2 from near base to beyond middle; crimson streaks below costa from middle to near apex and rather obscure streaks in the interspaces beyond the cell; an antemedial black line excurved below costa, then oblique; a medial line strongly angled inwards in cell and slightly in submedian fold; the

postmedial line strongly excurved from below costa to vein 4, then incurved, a forked streak from it on veins 7, 8, a streak on vein 6 nearly reaching termen, and a streak on vein 4 not connected with it.

Hab. PHILIPPINES, Manilla, 1 ♀. *Exp.* 40 millim. Type † in Coll. Semper.

1040. *Mitochrista gratiosa*.

Euchelia gratiosa, Guér. Deless. Souv. Ind. ii. p. 90, pl. 26. f. 1 (1843);

Hmps. Moths Ind. ii. p. 118; Kirby, Cat. Het. p. 306.

Lithosia striata, Brem. & Grey, Motsch. Ét. Ent. i. p. 63 (1852); Kirby, Cat. Het. p. 306.

Barsine defecta, Wlk. ii. 546 (1854); Kirby, Cat. Het. p. 306.

Hypoprepia lanceolata, Wlk. vii. 1680 (1856).

Barsine mactans, Butl. Trans. Ent. Soc. 1877, p. 340; id. Ill. Het. B. M. v. p. 39, pl. 86. f. 13; Kirby, Cat. Het. p. 306.

Mitochrista pulchra, Butl. A. M. N. II. (4) xx. p. 396 (1877); id. Ill. Het. B. M. ii. p. 5, pl. 22. f. 6; Kirby, Cat. Het. p. 306.

Mitochrista pulchra, var. *pulcherrima*, Staud. Rom. Mém. iii. p. 187 (1887).

Barsine flammealis, Moore, P. Z. S. 1878, p. 28, pl. 3. f. 15; Kirby, Cat. Het. p. 306.

Barsine pretiosa, Moore, P. Z. S. 1879, p. 394; Butl. Ill. Het. B. M. vii. p. 78, pl. 132. f. 6; Kirby, Cat. Het. p. 306.

Barsine lucibilis, Swinh. Cat. Het. Mus. Oxon. p. 107, pl. 3. f. 6 (1892).

Ammatho epixantha, Meyr. Trans. Ent. Soc. 1894, p. 2.

Head and thorax orange-yellow, more or less suffused with crimson; palpi blackish; vertex of head, shoulders, patagia, meso- and metathorax, and fore and hind tibiae with more or less prominent fuscous spots; legs and abdomen yellow to crimson. Fore wing orange or yellow; a subbasal black point; the costa streaked with black to the antemedial fuscous line, which may be either continuous or reduced to a series of points, bent inwards to costa; a medial fuscous line or series of points oblique and nearly straight or more or less strongly bent inwards to costa; a postmedial line or series of



Fig. 355.—*Mitochrista gratiosa*, ♂. †.

points angled at vein 5, then oblique, and with a more or less complete series of fuscous streaks beyond it on the veins; series of crimson elongate spots in the interspaces before the antemedial and before and beyond the medial line; a spot beyond the cell, and a series of streaks in the interspaces of terminal area. Hind wing yellow to pale crimson.

The form *epixantha* from the Khâsis and Burma has the crimson markings almost obsolete, the lines punctiform; a Japanese specimen is similar but with the lines continuous. The form *defecta* from Nepal has the ground-colour pale yellow; *striata* from China, and *pulchra* from Japan, have the lines reduced to points, the fuscous streaks of terminal area slightly developed, the former being a yellow form; *gratiosa* from S. India is a similar crimson

form, but with the fuscous streaks strongly developed; *pretiosa*, *mactans*, and *flammealis* have the lines more continuous, the medial line bent inwards to costa, *pretiosa* from the N. W. Himalayas having the ground-colour yellow, *mactans* and *flammealis* from Sikhim tinged with crimson, the latter being a large strongly-marked form; *lucibilis* from Borneo is a yellow form, the lines continuous, the medial line straight, the crimson streaks of medial area elongate.

Hab. AMUR, type † *pulcherrima* in Coll. Staudinger; JAPAN, Yesso (*Pryer, Andrews*), Nikko (*Lewis, Jonas, Maries*), type *pulchra*, Tokio (*Fenton*), type † *lanceolata* in Mus. Oxon.; CHINA, Hongkong (*J. J. Walker*); N.W. HIMALAYAS, Dharmasála (*Hocking*), type *pretiosa*; NEPAL (*Hardwicke*), type *defecta*; SIKHIM (*Lidderdale*), Moore Coll., types *mactans* and *flammealis*; ASSAM, Khási Hills; CACHAR; NILGIRIS (*Hampson*); CEYLON; BURMA; BORNEO, type † *lucibilis* in Mus. Oxon. *Exp.* 34–46 millim.

1041. *Miltochrista curtisi*. (Plate XXXII. fig. 20.)

Miltochrista curtisi, Butl. A. M. N. H. (5) viii. p. 379 (1881); Kirby, Cat. Het. p. 308.

♀. Head and thorax yellow; tegulæ, patagia, and metathorax edged with crimson; legs tinged with crimson; abdomen pale crimson. Fore wing yellow, some fuscous-brown marks at base; scarlet streaks from base just below costa, in submedian fold, and on inner margin, interrupted by the broad brown antemedial band which forks towards costa and expands at middle, enclosing a scarlet spot; a scarlet streak in cell from the antemedial to the very broad postmedial brown band, which has a crimson streak above it on costa; traces of a streak above vein 5, its outer edge irregular, and a series of streaks from it to termen. Hind wing pale crimson. Underside of fore wing largely suffused with crimson.

Hab. SUMATRA (*Curtis*), 1 ♀ type. *Exp.* 50 millim.

1042. *Miltochrista rubricostata*.

Hypocrita rubricostata, Herr.-Schäff. Aussereur. Schmett. i. p. 439 (1855);

Swinh. Cat. Het. Mus. Oxon. p. 108; Kirby, Cat. Het. p. 308.

Hypoprepia rubrigutta, Wlk. Journ. Linn. Soc., Zool. vi. p. 101 (1862).

Yellow; vertex of head, shoulders, and fore tibiæ with fuscous spots; patagia and metathorax edged with scarlet. Fore wing with scarlet spots, a slight streak below median nervure and on inner margin and three fuscous points at base; an oblique elliptical scarlet spot below the cell on an antemedial fuscous band, which expands at middle and encloses a yellow point on costa; a scarlet mark from its outer edge to the broad fuscous postmedial band, which has its outer edge irregular and a series of scarlet streaks on it, some of them sometimes interrupted at middle and the streak nearest the costa on a yellow ground. Hind wing pale yellow.

Hab. LABUAN; BORNEO, Sarawak (*Wallace*), 1 ♀, 1 ♂ type † *rubrigutta* in Mus. Oxon., Kina Balu. *Exp.*, ♂ 30, ♀ 40 millim.

*1043. *Miltochrista coccinea*.

Barsine coccinea, Moore, Journ. As. Soc. Bengal, lv. p. 98 (1886); Kirby, Cat. Het. p. 307.

Head, thorax, and abdomen orange-red; patagia with fuscous spots. Fore wing orange; an excurved antemedial fuscous band conjoined in cell to the medial band, which is angled inwards to meet it, then outwards to join the postmedial band below median nervure, the bands outlined with crimson; a terminal series of crimson spots. Hind wing pale crimson.

Hab. ASSAM, Margharita (*Doherty*); ТАВОУ. *Exp.* 32 millim.

*1044. *Miltochrista eccentropis*. (Plate XXXII. fig. 30.)

Miltochrista eccentropis, Meyr. Trans. Ent. Soc. 1894, p. 3; Hmps. Moths Ind. iv. p. 500.

♂. Head white; palpi fuscous; thorax orange, the metathorax white. Fore wing white; a round dark grey subbasal spot; two curved antemedial series of five spots; a curved orange medial band; a black discoidal spot; the postmedial line bent outwards beyond the cell and angled on veins 6 and 4, the veins beyond it streaked with black, forking on veins 7, 8, 9. Hind wing yellowish white; the veins of terminal area streaked with fuscous, more shortly towards tornus.

Hab. UPPER ASSAM; BURMA, Shán States, type † ♂ in Coll. Meyrick. *Exp.* 20 millim.

1045. *Miltochrista maculifasciata*. (Plate XXXII. fig. 14.)

Miltochrista maculifasciata, Hmps. Moths Ind. ii. p. 110 (1894).

♀. Head, thorax, and abdomen orange-yellow; palpi towards extremity, antennæ, spots on shoulders, and meso- and metathorax black; legs mostly fuscous. Fore wing dull ochreous whitish; the base yellow; a subbasal black spot, and a spot at base of costa; three antemedial series of large blue-black spots, the two outer series almost forming lines and coalescing except towards inner margin; a prominent discoidal spot; the veins of terminal area strongly streaked with purplish black, their bases expanding and almost forming a line angled at veins 6 and 4, the streaks forked on veins 7, 8, 9. Hind wing dull ochreous whitish, the base and inner area orange-yellow; the veins of terminal area strongly streaked with purple black.

Hab. BURMA, Rangoon (*Scott*), 1 ♀ type. *Exp.* 36 millim.

*1046. *Miltochrista nigralba*. (Plate XXXII. fig. 15.)

Miltochrista nigralba, Hmps. Moths Ind. ii. p. 109 (1894).

Head pale yellow; palpi, antennæ, and a spot between their bases blackish; thorax whitish, with black spots on tegulæ, patagia, meso- and metathorax; legs banded with fuscous; abdomen orange-

yellow; wings white, tinged with yellow towards base. Fore wing with the basal half of costal edge black; a subbasal black spot; two curved antemedial series of three bar-shaped black spots, and a similar medial series which is erect except that the spot on inner area is angled inwards to the margin; a discoidal lunule; a very irregularly dentate postmedial line emitting long teeth on veins 7, 4, and 3; a somewhat interrupted series of streaks on the veins of terminal area, ending in spots on the cilia. Hind wing with obscure medial line; a series of black streaks on veins of terminal area, with some diffused fuscous between them.

Hab. BURMA, Bernardmyo (*Doherty*), type † in Coll. Elwes. *Exp.*, ♂ 24, ♀ 28 millim.

*1047. **Miltochrista fasciata.** (Plate XXXII. fig. 18.)

Miltochrista fasciata, Leech, Trans. Ent. Soc. 1899, p. 197.

♀. Head, thorax, and abdomen ochreous; shoulders with black spots; legs spotted with black. Fore wing yellowish white; the costal edge black towards base; a black point at base of cell, and subbasal black spot in cell; an antemedial curved series of three black strigæ, followed by a curved line interrupted in cell and submedian fold; a medial series of three strigæ closely approximate to the antemedial line at middle; a prominent discoidal spot; the postmedial line bent outwards beyond the cell and strongly angled on veins 6 and 4, and with a series of short streaks on the veins beyond it, more elongate towards costa; a terminal series of points. Hind wing yellowish white, with short black streaks on the veins of terminal area.

Hab. W. CHINA, Omeishan, 1 ♀ type † in Coll. Leech. *Exp.* 26 millim.

1048. **Miltochrista radians.**

Lyclene radians, Moore, P. Z. S. 1878, p. 30, pl. 3. f. 2; Hupsn. Moths Ind. ii. p. 116; Kirby, Cat. Het. p. 311.

♀. Very pale yellow; shoulders, meso- and metathorax with black spots; abdomen orange towards extremity. Fore wing with subbasal black spot; an antemedial series of three spots, followed by a curved line, interrupted in cell and submedian fold; a medial line interrupted in cell and submedian fold and slightly bent outwards below the latter; a prominent discoidal spot; the veins of terminal area strongly streaked with black, their bases expanding and almost forming a line, angled at veins 6 and 4 and excurved to inn margin, the streak on veins 7, 8, 9 forked. Hind wing with short black streaks on the veins of terminal area.

♂. Fore wing with the postmedial line more continuous.

Hab. SIKHIM; UPPER ASSAM; CALCUTTA (*Atkinson*), 1 ♀ type. *Exp.* 22 millim.

1049. *Miltochrista zebrina*.

Lyclene zebrina, Moore, P. Z. S. 1878, p. 31, pl. 3. f. 4; Hmps. Moths Ind. ii. p. 116; Kirby, Cat. Het. p. 311.

Very pale yellowish white; thorax and abdomen yellower; shoulders, meso- and metathorax with black spots; tibiæ and tarsi streaked with blue-black. Fore wing with subbasal black spot; the costal edge black towards base; two curved antemedial series of three bar-shaped spots, angled below the costa, then oblique; a medial line slightly angled in submedian fold; a prominent discoidal spot; the veins of terminal area streaked with black, their bases expanding and almost forming a line, angled at vein 7 and more acutely at vein 4, the streak on veins 7, 8, 9 forked. Hind wing with short black streaks on veins of terminal area, sometimes with diffused fuscous between them.

Hab. BHUTÁN, 2500 feet (*Dudgeon*), 1 ♂; CALCUTTA, 1 ♀ type. *Exp.*, ♂ 22, ♀ 24 millim.

1050. *Miltochrista prominens*.

Lyclene prominens, Moore, P. Z. S. 1878, p. 31, pl. 3. f. 3; Hmps. Moths Ind. ii. p. 109; Kirby, Cat. Het. p. 311.

Orange-yellow; shoulders and mesothorax with black spots; tibiæ and tarsi marked with black; abdomen with ventral black bands. Fore wing with subbasal black spot; the costal edge black towards base, an antemedial series of three rather wedge-shaped spots; the antemedial line angled in cell, then very oblique, interrupted in cell and submedian fold; a medial line slightly angled outwards in cell and submedian fold, and inwards on median nervure; a discoidal spot; the postmedial line running out to very acute points on veins 7, 6, and 4, angled inwards below costa and at vein 5, and incurved below vein 4; a series of streaks on the veins of terminal area, not quite joining the postmedial line, and forked on veins 7, 8. Hind wing with series of streaks on the veins of terminal area.

Hab. ASSAM, Khásis, 2 ♂, 2 ♀, type. *Exp.*, ♂ 30, ♀ 34 millim.

1051. *Miltochrista delicata*. (Plate XXXII. fig. 19.)

Lyclene delicata, Moore, P. Z. S. 1878, p. 31; Hmps. Moths Ind. ii. p. 110; Kirby, Cat. Het. p. 311.

♀. Orange-yellow; shoulders and mesothorax with black spots; tibiæ spotted with black; abdomen with ventral black bands towards base, and a pair of spots near extremity. Fore wing with subbasal black spot; the costal edge black towards base; three antemedial spots followed by a curved series of four spots; the medial line oblique, slightly bent outwards below vein 1; a postmedial series of spots, angled on veins 6 and 4, and with the veins from just beyond them to termen streaked with black, the streak on veins 7, 8 forked. Hind wing with the veins of terminal area finely streaked with black.

Hab. SIKHIM (*Grote*), 1 ♀ type. *Exp.* 30 millim.

1052. *Miltochrista linga*. (Plate XXXII. fig. 21.)

Barsine linga, Moore, Lep. E. I. C. p. 301 (1859); Hmps. Moths Ind. ii. p. 110; Kirby, Cat. Het. p. 305.

Barsine tripartita, Wlk. xxxi. 250 (1864); Kirby, Cat. Het. p. 310.

Very pale yellow; head and extremity of abdomen more orange; shoulders, patagia, and mesothorax with black spots; fore tibiae and tarsi and extremities of mid and hind tarsi marked with black. Fore wing with three black points at base; the costal edge black towards base; antemedial and medial series of six points, the former bent inwards to costa; the veins of terminal area streaked with black, arising from a series of spots just beyond the cell, forked on veins 7, 8, 9 and nearly reaching termen.

Hab. N.W. HIMALAYAS, Kangra (*Hocking*), 1 ♂; SIKHIM (*Atkinson, Lidderdale, Dudgeon*), 4 ♂, 1 ♀, type and type *tripartita*. *Exp.* 40-46 millim.

1053. *Miltochrista phæoxanthia*, n. sp. (Plate XXXII. fig. 23.)

♀. Head and thorax yellow; abdomen yellowish white. Fore wing bright yellow with purplish fuscous markings; an ill-defined antemedial line produced to long teeth in cell and submedian fold and to a short tooth below costa, on vein 1 retracted towards base; a postmedial line strongly bent outwards below costa, then oblique and minutely dentate, a series of streaks in the interspaces beyond it extending to termen at apex and tornus and almost to it at vein 4; a series of slight brownish terminal points. Hind wing pale yellow, slightly tinged with fuscous towards base.

Hab. ASSAM, Khâsis, 1 ♀ type. *Exp.* 24 millim.

*1054. *Miltochrista multidentata*. (Plate XXXII. fig. 24.)

Miltochrista multidentata, Holl. ined.

♂. Orange; fore tibiae and tarsi spotted with fuscous; abdomen and hind wing tinged with pink. Fore wing with dentate antemedial, medial, postmedial, and submarginal lines, the last broken up into points.

Hab. BOUROU. *Exp.* 24 millim. Type† ♂ in Coll. Holland.

*1055. *Miltochrista vagilinea*.

Lycene vagilinea, Wlk. Journ. Linn. Soc., Zool. vi. p. 114 (1862); Swinh. Cat. Het. Mus. Oxon. p. 101, pl. 4. f. 11; Kirby, Cat. Het. p. 310.

White; palpi and antennae tinged with fuscous; frons, vertex of head, shoulders, patagia, and mesothorax with fuscous spots; fore legs banded with fuscous; abdomen slightly tinged dorsally with fuscous. Fore wing with black-brown spots at base of costa and cell; subbasal spots on costa and below cell; a curved antemedial line; a medial line angled inwards to the antemedial line in cell; a wedge-shaped spot in end of cell; the postmedial line arising from

the same point as the medial line, strongly excurved from below costa to vein 3, slightly dentate on vein 2, and very strongly angled inwards in submedian fold; subterminal spots below costa and on veins 6, 4, and 1.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ type † in Mus. Oxon. *Exp.* 18 millim.

1056. *Mitochrista proleuca*, n. sp. (Plate XXXII. fig. 28.)

♂. Head, thorax, and abdomen white, irrorated with fuscous. Fore wing white, the costa tinged with fuscous, the inner area irrorated with fuscous; a fine medial black line, incurved from below costa to submedian fold, where it is angled outwards. Hind wing pale fuscous, the cilia white.

Hab. SIKHIM, 1 ♂ type, Zell. Coll. *Exp.* 24 millim.

1057. *Mitochrista spilosomoides*.

Lycene spilosomoides, Moore, P. Z. S. 1878, p. 33; Hmps. Moths Ind. ii. p. 113; Kirby, Cat. Het. p. 305.

Lycene indistincta, Moore, P. Z. S. 1878, p. 33, pl. 3. f. 9; Kirby, Cat. Het. p. 305.

♂. Very pale yellow; palpi and lower part of frons fulvous, the former blackish at tips; shoulders, patagia, and mesothorax with black spots; abdomen fulvous at extremity. Fore wing with three black points at base; a curved antemedial series of six points, traces of an oblique medial series, and a postmedial series of nine points.

♀. Fore wing rather yellower, the medial series of points more distinct, slight subterminal dark marks on veins 6 and 4.

Hab. "N.W. INDIA," 1 ♂ type; SIKHIM, type † *indistincta* in Coll. Staudinger; ASSAM, Khâsis, 2 ♀. *Exp.*, ♂ 44, ♀ 50 millim.

*1058. *Mitochrista magna*. (Plate XXXIII. fig. 20.)

Mitochrista magna, Hmps. Moths Ind. ii. p. 112 (1894).

♀. Head, thorax, and fore wing pale sulphur-yellow; palpi black at tips; patagia with black points. Fore wing with subbasal black point; faint traces of an antemedial series of points; a more distinct postmedial series from vein 6 to inner margin, its upper end curved inwards; the veins beyond the cell slightly streaked with grey; slight subterminal points on veins 4 and 6. Hind wing yellowish white, the veins darker, the inner and terminal areas yellowish.

Hab. MANIPUR, type † in Coll. Elwes; BURMA, Bernardmyo (*Doherty*). *Exp.* 48 millim.

1059. *Mitochrista pallida*.

Calligena pallida, Brem. Lep. Ost-Sib. p. 97, pl. 8. f. 7 (1864); Kirby, Cat. Het. p. 312.

♀. White; palpi fuscous at sides; antennæ yellowish. Fore

wing with the costa and termen broadly yellow; a subbasal black point; a discoidal point; a subterminal series of points on veins 3 to 7. Hind wing pale yellow.

Hab. AMUR, 1 ♀. *Exp.* 28 millim.

1060. *Miltochrista effasciata*. (Plate XXXII. fig. 29.)

Cyme effasciata, Feld. Sitz. Akad. Wien, xliii. p. 36 (1861); Kirby, Cat. Het. p. 300.

Lithosia cinnabarina, Pag. Jahrb. Nass. Ver. xxxvii. p. 216 (1884); Kirby, Cat. Het. p. 314.

Orange tinged with crimson. Fore wing with the costal edge brownish; the interspaces slightly streaked with crimson.

Hab. AMBOINA, 1 ♀, type ♂ in Coll. Rothschild. *Exp.* 28 millim.

1061. *Miltochrista perpallida*, n. n. (Plate XXXII. fig. 22.)

Korawa pallida, Moore, P. Z. S. 1878, p. 12; Hmps. Moths Ind. ii. p. 113; Kirby, Cat. Het. p. 316 (nec Brem.).

Head, thorax, and fore wing very pale ochreous; palpi black; tegulæ tinged with orange; abdomen and hind wing white.

Hab. SIKHIM, Moore Coll., 1 ♂, 3 ♀, type, (*Lidderdale*) 2 ♀. *Exp.*, ♂ 40, ♀ 54 millim.

1062. *Miltochrista hololeuca*. (Plate XXXIII. fig. 13.)

Miltochrista hololeuca, Hmps. Trans. Ent. Soc. 1895, p. 296; id. Moths Ind. iv. p. 500.

♂. Pure white; palpi black; antennæ with the apical third black; fore legs streaked with fuscous; tegulæ and extremity of abdomen tinged with orange.

Hab. BHUTÁN (*Dudgeon*), 1 ♂ type. *Exp.* 38 millim.

Genus **EUTANE**.

Eutane, Wlk. ii. p. 531 (1854) *terminalis*. Type.

Proboscis well developed; palpi porrect to just beyond frons; antennæ of male ciliated; tibæ with the spurs moderate. Fore wing rather narrow; vein 2 from beyond middle of cell, oblique; 3 from near angle; 5 from above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 7 from beyond 9; 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 shortly stalked; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

A. Fore wing black with orange bands *terminalis*.
B. Fore wing white with black points *alba*.

1063. *Eutane terminalis*.

Eutane terminalis, Wlk. ii. 531 (1854); Herr.-Schäff. Aussereur. Schmett. f. 547; Kirby, Cat. Het. p. 298.

Eutane maculata, Butl. Trans. Ent. Soc. 1877, p. 335; Kirby, Cat. Het. p. 298.

Black; frons, tegulæ and base of patagia, and usually the vertex of head orange; legs slightly streaked with orange; abdomen with

lateral orange points, the anal tuft orange. Fore wing with orange subbasal patch not reaching costa or inner margin; medial spots below costa and on inner margin; a postmedial band from just below costa, its outer edge slightly angled at vein 5, its lower end excised above inner margin; two conjoined subterminal spots below apex and one below middle. Hind wing orange with broad black



Fig. 356.—*Eutane terminalis*, ♂. $\frac{1}{2}$.

terminal band, its inner edge slightly angled at middle; the inner area tinged with black.

Ab. l. maculata. Fore wing with the orange markings rather larger and paler.

Hab. QUEENSLAND, Maryborough; N. S. WALES, Sydney (*Hunter, Stutchbury, Darnley, Mathew, Raynor*), type and type *maculata*, Newcastle. *Exp.*, ♂ 24, ♀ 30 millim.

1064. *Eutane alba*, n. sp. (Plate XXXIII. fig. 9.)

♀. White; frons fuscous brown; fore tibiæ and tarsi brownish. Fore wing with black discoidal point; a subapical point, and two points close to termen on veins 4 and 1; the costa and termen towards apex tinged with yellow-brown. Hind wing with a very slight fuscous tinge on terminal half.

Hab. BORNEO, Sandakan (*Pryer*), 1 ♀ type. *Exp.* 16 millim.

Genus SCAPHIDRIOTIS.

Type.

Scaphidriotis, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 14 ...*xylogramma*.

Proboscis fully developed; palpi upturned, hardly reaching vertex of head, and fringed with hair on outer side; antennæ of male minutely serrate with bristles and cilia; the basal joint long, the shaft fringed with scales on upper-side for a short distance, then bent; the patagia clothed with long hair extending beyond metathorax, which has a tuft of hair; tibiæ with the spurs long; abdomen clothed with rough hair. Fore wing narrow; the subcostal and median nervures approximate towards base; veins 2, 3 stalked, bent downwards near origin, and connected with vein 1 by a bar; 4, 5 absent; 6 from well below upper angle; 7, 8, 9 stalked; 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 from well above angle; 6, 7 shortly stalked; 8 from before middle of cell; male with patch of dark androconia in upper end of cell on upperside.

1065. *Scaphidriotis xylogramma*.

Scaphidriotis xylogramma, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 14.

♂. Head, thorax, and abdomen clothed with ochreous, brown, and fuscous scales. Fore wing ochreous, thickly irrorated and suffused with brown and fuscous, especially on basal half; the inner margin with blackish streak; subbasal, antemedial, and medial blackish spots

on costa; the postmedial line blackish, with long acute dentations bent outwards below costa, with a dark lunule on its inner side on lower part of discocellulars and base of veins 2-3, the line defined by ochreous on outer side; three dark spots on costa towards apex and a terminal series. Hind wing brownish white, with some brown suffusion in, below, and beyond the cell, the patch of androconia in upper end of cell glistening blackish; a slight brown terminal line.

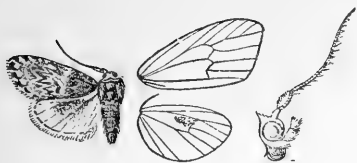


Fig. 357.

Scaphidriotis xylogramma, ♂. $\frac{3}{2}$.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♂, type † ♂ in Coll. *Turner*. *Exp.* 20 millim.

Genus **HECTOBROCHA.**

Type.

Hectobrocha, Meyr. Proc. Linn. Soc. N. S. W. (2) i. p. 706(1886)..... *pentacyma*.

Proboscis fully developed; palpi porrect to well beyond the frons; antennæ of male ciliated; tibiæ with the spurs long. Fore wing broad; vein 2 from middle of cell; 3 from well before angle; 4, 5 coincident; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 from angle; 5 from well above angle; 6, 7 shortly stalked; 8 from middle of cell.

- A. Head and thorax white *pentacyma*.
 B. Head and thorax yellow..... *multilinea*.

*1066. *Hectobrocha pentacyma*.

Hectobrocha pentacyma, Meyr. Proc. Linn. Soc. N. S. W. (2) i. p. 707
 (1886); Kirby, Cat. Het. p. 297.

♂. Head and thorax white; palpi blackish; antennæ yellowish, blackish at base; patagia banded with black at base; meso- and metathorax with black spots; fore and mid tibiæ and tarsi marked with black; abdomen yellow. Fore wing whitish, the costa and

Fig. 358.—*Hectobrocha pentacyma*, ♂. $\frac{1}{2}$.

terminal area suffused with yellow; two obliquely placed black spots at base, with a patch above them on costa; the antemedial black line minutely dentate, bent outwards from subcostal to median nervures, angled inwards below the cell and outwards on vein 1; a black spot in middle of cell; a minutely dentate medial line oblique from costa to vein 4; two obliquely placed spots just beyond the cell, the upper larger; a

dentate postmedial line oblique from costa to discal fold, followed by a less prominent and hardly dentate line arising from a black spot on costa and angled outwards on vein 4; a dentate subterminal line. Hind wing yellow.

Hab. ? QUEENSLAND, type + ♂ in Coll. Meyrick. *Exp.* 32 millim.

*1067. *Hectobrocha multilinea*. (Plate XXXIII. fig. 1.)

Hectobrocha multilinea, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1072 (1890); Kirby, Cat. Het. p. 297.

♂. Yellow; palpi blackish; tegulae banded with black at base; meso- and metathorax with black spots; fore tarsi banded with black; hind tibiae and tarsi banded with black above; abdomen with traces of dorsal black bands on medial segments. Fore wing with the costa black towards base; a subbasal maculate band angled in cell and not reaching inner margin; a minutely dentate antemedial line incurved from median nervure to vein 1; a spot at middle of cell; a dentate medial line excurved in cell and angled outwards below vein 2; two obliquely placed spots beyond the cell; a minutely dentate postmedial line excurved beyond the cell, followed by another line arising from a spot on costa, bent outwards below the costa and angled outwards on veins 4 and 2; a dentate subterminal line. Hind wing with diffused fuscous terminal band narrowing from costa to tornus.

Hab. QUEENSLAND, Brisbane (*Lucas*), in Coll. Meyrick. *Exp.* 38 millim.

Genus **NEOBROCHA**.

Type.

Neobrocha, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 707 (1886)... *phæocyma*.

Proboscis well developed; palpi short, upturned, roughly scaled; antennae of male with bristles and cilia; tibiae with the spurs moderate, pectus with paired striated bladders above hind coxae. Fore wing with vein 2 from middle of cell; 3 from cell; 5 absent; 6 from or from below upper angle; 7, 8, 9 stalked; 7 from beyond 9; 10 from cell or shortly stalked with 7, 8, 9; 11 free. Hind wing with vein 2 from middle of cell; 3, 4 from cell; 5 absent; 6, 7 stalked; 8 from middle of cell.

SECT. I. Fore wing with vein 3 becoming coincident with 4 towards termen, a fold below costa beyond the cell and veins 10, 11 distorted; hind wing with veins 3, 4 separate.

*1068. *Neobrocha phæocyma*. (Plate XXXIII. fig. 2.)

Neobrocha phæocyma, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 708 (1886); Kirby, Cat. Het. p. 297.

♂. Head and thorax pale brownish ochreous; a patch on vertex of head and indistinct band on prothorax fuscous; abdomen grey, the anal tuft ochreous white; legs pale ochreous, fore tibiae fuscous towards extremity. Fore wing pale brownish ochreous irrorated with dark scales; some ill-defined dark markings; a subbasal striga

from vein 1 to inner margin; two antemedial and two postmedial somewhat curved dentate lines; a discoidal point; traces of a sub-terminal irregular line; a terminal series of subquadrate fuscous spots; cilia ochreous white, with a grey line through them. Hind wing and cilia grey tinged with brown.

Hub. TORRES STRAITS, Thursday I. *Exp.* 25 millim. Figured from drawing in Coll. Meyrick.

SECT. II. Fore wing with vein 3 not becoming coincident with 4; no fold below costa; hind wing with veins 3, 4 from a point.

*1069. *Neobrocha adoxa*.

Neobrocha adoxa, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 708 (1836) Kirby, Cat. Het. p. 297.

♂. Head, thorax, and abdomen pale fuscous; palpi darker. Fore wing pale fuscous, sparsely irrorated with dark fuscous, more thickly towards base and termen; antemedial, medial, and two postmedial diffused curved dentate fuscous lines; a discoidal point; cilia whitish. Hind wing whitish tinged with fuscous.

Hub. N. S. WALES. *Exp.* 35 millim. This species is unknown to me.

Genus **THALLARCHA**.

<i>Thallarcha</i> , Meyr. P. Linn. Soc. N. S. W. (2) i. p. 736 (1836) ...	Type.
<i>Comarchis</i> , Meyr. P. Linn. Soc. N. S. W. (2) i. p. 739 (1836) ...	<i>phalarota</i> .
	<i>isophragma</i> .

Proboscis fully developed; palpi porrect, reaching just beyond frons; tibiae with the spurs moderate. Fore wing rather narrow; vein 2 from middle of cell, oblique; 3 from well before angle; 5 from well above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6, 7 strongly stalked; 8 from middle of cell.

SECT. I. (*Thallarcha*). Antennæ of male bipectinate.

- | | |
|---|-----------------------|
| A. Hind wing with dark discoidal spot. | |
| a. Fore wing orange with black band | <i>chrysochares</i> . |
| b. Fore wing white with dark bands | <i>albicollis</i> . |
| c. Fore wing white with fine lines | <i>macillenta</i> . |
| d. Fore wing grey with obscure lines | <i>fusa</i> . |
| B. Hind wing without discoidal spot. | |
| a. Hind wing grey | <i>leptographa</i> . |
| b. Hind wing orange with dark terminal band | <i>phalarota</i> . |

*1070. *Thallarcha chrysochares*. (Plate XXXIII. fig. 3.)

Thallarcha chrysochares, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 738 (1836); Kirby, Cat. Het. p. 349.

Comarchis cosmia, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 19.

♂. Head, thorax, and abdomen black-brown; vertex of head, tegulae, tips of patagia, spots on mesothorax, the greater part of legs, anal tuft, and ventral surface of abdomen orange. Fore wing orange; a black spot at base of costa; an oblique medial band with

slightly sinuous edges, giving off a short fork on its inner side above inner margin; the postmedial line fine towards costa, then conjoined to a large patch extending to costa near apex and termen below apex and ending in a patch at tornus. Hind wing orange, with discoidal black point; a terminal rather broad band interrupted at middle by an orange patch on termen and cilia.

Hab. QUEENSLAND, Brisbane, type † *cosmia* in Coll. Turner; N. S. WALES, type † ♂ in Coll. Meyrick. *Exp.* 20 millim.

1071. *Thallarcha albicollis*.

Pitane albicollis, Feld. Reis. Nov. pl. 140. f. 37 (1875); Kirby, Cat. Het. p. 349. *Comarchis chionea*, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 20.

♂. Head and tegulæ white; palpi, frons, and antennæ blackish; thorax black, the extremity of patagia white; legs white and fuscous; abdomen orange-yellow. Fore wing white; the basal part of costa streaked with black; an antemedial black band angled outwards on median nervure; an oblique medial band slightly angled inwards on median nervure and almost touching the antemedial band; a discoidal spot conjoined to the oblique postmedial band ending at tornus and conjoined to a curved patch from costa before apex to termen below apex; a spot on termen above tornus, sometimes conjoined to the subapical patch. Hind wing orange-yellow, with dark discoidal point or lunule and fuscous apical patch.

Hab. QUEENSLAND, Brisbane, type † *chionea* in Coll. Turner; N. S. WALES, Sydney (*Raynor*), 2 ♂; S. AUSTRALIA, Mt. Lofty. *Exp.* 22 millim.

1072. *Thallarcha macillenta*. (Plate XXXIII. fig. 10.)

Nudaria macillenta, Lucas, P. Linn. Soc. N. S. W. (2) viii. p. 137 (1893).

♂. White; head and thorax slightly tinged with brown. Fore wing irrorated with brown; a subbasal black spot on costa, almost conjoined to a spot in cell; an antemedial spot on costa and a sinuous line from subcostal nervure to inner margin, strongly angled inwards in submedian fold and outwards on vein 1; a spot at middle of cell and curved discoidal line; a point on middle of costa; an irregular dentate black patch below end of cell, with a curved line from it to inner margin, with a point inside it on the margin; a somewhat interrupted postmedial sinuous line bent outwards below costa, angled at veins 6 and 4, then incurved and diffused; a diffused spot on costa before apex and another above vein 5 with a point beyond it on termen; a series of points on cilia. Hind wing white tinged with brown; a discoidal point.

Hab. QUEENSLAND, Brisbane; N. S. WALES, Parramatta (*Raynor*), 1 ♂. *Exp.* 20 millim.

1073. *Thallarcha fusa*, n. sp. (Plate XXXIII. fig. 26.)

♂. Head, thorax, and abdomen grey mixed with black; palpi pale yellow; tegulæ and patagia edged with yellow; hind legs

yellow; anal tuft yellow. Fore wing grey; a subbasal black point; a curved antemedial series of four black points; medial black points below costa and in cell; a V-shaped discoidal mark. Hind wing orange-yellow, with blackish discoidal spot; the apical area suffused with fuscous and a little fuscous on termen towards tornus.

Hab. W. AUSTRALIA, Freemantle (*J. J. Walker*), 1 ♂ type. *Exp.* 28 millim.

1074. *Thallarcha leptographa*. (Plate XXXIII. fig. 11.)

Thallarcha leptographa, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 19.

♂. Head and tegulæ grey-white; palpi, frons, antennæ, and thorax blackish; tips of patagia whitish; abdomen whitish. Fore wing grey-white, a dark point at base of costa; an antemedial minutely dentate dark line strongly angled outwards on median nervure; a double strongly sinuous dark medial line with brown suffusion between the two parts; a dark discoidal lunule; a dentate postmedial line strongly bent outwards between veins 7 and 3, and with some brown suffusion beyond it on costa and at middle; a terminal series of brown points. Hind wing yellowish white, slightly tinged with brown towards termen.

Hab. QUEENSLAND, Brisbane, type † ♂ in Coll. Turner; N. S. WALES, Sydney (*Mathew*), 1 ♂. *Exp.* 18 millim.

1075. *Thallarcha phalarota*. (Plate XXXIII. fig. 15 ♀.)

Thallarcha phalarota, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 736 (1886), ♂; Kirby, Cat. Het. p. 349.

Thallarcha phædropa, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 737 (1886), ♀.

♂. Head yellowish white; palpi, frons, and antennæ black-brown, the last with the tips white; thorax and abdomen black-brown; fore and mid legs yellowish and brown; hind legs orange; abdomen with the anal tuft and base of ventral surface orange. Fore wing black-brown, with white



Fig. 359.—*Thallarcha phalarota*, ♂. 3. subbasal patch from subcostal nervure to inner margin; an incurved white postmedial line more or less interrupted at middle; cilia whitish below apex. Hind wing orange, with apical black-brown patch continued as a narrow terminal band to tornus.

♀. Tegulæ white; fore wing with the subbasal patch larger and dome-shaped; an oblique triangular patch from costa beyond middle, almost or quite conjoined at lower angle of cell to an irregular patch extending to tornus; a dark wedge-shaped spot on discocellulars; a curved dentate mark from costa before apex to termen below apex.

Hab. N. S. WALES, Sydney (*Raynor*), 5 ♂, 4 ♀. *Exp.* 18 millim.

SECT. II. (*Comarchis*). Antennæ of male minutely serrate and ciliated.

- A. Hind wing with dark discoidal spot.
 a. Fore wing without black fascia on basal part of costa. *sparsana*.
 b. Fore wing with black fascia on basal part of costa.
 a¹. Fore wing with the ground-colour white *isophragma*.
 b¹. Fore wing with the ground-colour yellow *jocularis*.
 B. Hind wing without discoidal spot.
 a. Fore wing with antemedial band.
 a¹. Fore wing with subterminal band connected with the termen below apex by a fascia.
 a². Fore wing with the ground-colour orange-yellow. *partita*.
 b². Fore wing with the ground-colour white.
 a³. Fore wing with medial band *lochaga*.
 b³. Fore wing with two medial lines *oblita*.
 b¹. Fore wing with wedge-shaped dark patch on middle of terminal area. *staurocola*.
 b. Fore wing without antemedial band *mochlina*.

1076. *Thallarcha sparsana*.

Conchylis sparsana, Wlk. xxviii. 369 (1863); Kirby, Cat. Het. p. 296.
Pallene gracilis, Butl. Trans. Ent. Soc. 1877, p. 376.

Head and tegulæ white; palpi at tips, frons, and antennæ blackish; thorax black, the tips of patagia and a spot on metathorax white; legs white and fuscous; abdomen orange.



Fig. 360.—*Thallarcha sparsana*, ♂. 3.

Fore wing white; a black point at base of costa; an antemedial series of points consisting of 4 obliquely placed from costa to median nervure and one on vein 1, the point on median nervure touching the sinuous medial line, which is angled inwards at middle and sometimes forming a band; two conjoined discoidal points conjoined to a black patch extending to costa before apex; a postmedial series of points slightly bent outwards between veins 7 and 3; a terminal series of points; cilia yellowish. Hind wing orange-yellow, with two more or less conjoined fuscous discoidal points and an apical patch.

Ab. 1. Fore wing suffused with fuscous except the basal area from costa before middle to middle of inner margin.—S. Australia.

Ab. 2. Fore wing entirely suffused with grey.—Queensland.

Hab. QUEENSLAND, Peak Downs, 1 ♀; N. S. WALES, Moreton Bay (*Diggles*), type and type *gracilis*, Sydney (*Raynor*, *Mathew*), 3 ♂, 3 ♀; S. AUSTRALIA, 1 ♀. *Exp.* 18 millim.

*1077. *Thallarcha isophragma*. (Plate XXXIII. fig. 6.)

Comarchis isophragma, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 739 (1886); Kirby, Cat. Het. p. 296.

Head and thorax black; palpi in front, patches above eyes, and base of antennæ yellowish; frons, tegulæ, tips of patagia, and sides of metathorax with patches of white; hind legs and abdomen

yellow. Fore wing white; a black fascia with a few white scales on it on costal area to beyond middle and a blackish streak on base of inner margin; antemedial spots in cell and above and below vein 1; a prominent discoidal black spot; three waved fuscous black lines on medial area from cell to inner margin, diffused and partially conjoined; a postmedial minutely waved line, angled below costa and interrupted in discal fold; a diffused dentate subterminal line expanding into a patch on costa and connected with termen by some suffusion below apex; a series of spots just inside termen; cilia fuscous black. Hind wing pale yellow; a discoidal fuscous spot conjoined to a fuscous fascia on apical part of costa; a fuscous patch on apical area.

Hab. TASMANIA, Launceston, type \dagger ♀ in Coll. Meyrick. *Exp.* 24 millim.

1078. *Thallarcha jocularis*.

Mosoda jocularis, Rosenst. A. M. N. H. (5) xvi. p. 381, pl. 11. f. 6 (1885);

Kirby, Cat. Het. p. 296.

Comarchis chrysochroa, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 740 (1886);

Kirby, Cat. Het. p. 296.

♂. Head black, the vertex white with black patch; tegulae white; thorax black; fore and mid legs fuscous; hind legs orange; abdomen orange, dorsally black at base. Fore wing white or yellowish white; the inner area orange-yellow; a black streak on base of costa to the antemedial line, which is angled below the cell, interrupted on vein 1 and often reduced to a point on inner area; a sinuous medial line expanding into a patch at costa and excurved below the cell; a round discoidal spot with spot above it on costa and bar below it from vein 3 to or to above vein 1, often with a point between it and inner margin; the terminal area broadly black except on inner area, with whitish subterminal spot below apex and terminal spot at middle with a black point on it; cilia white at apex and middle. Hind wing orange, with black discoidal point; a black apical patch extending to vein 3, or continued as a narrow band towards tornus.

Ab. 1. *chrysochroa*. Fore wing with the ground-colour wholly orange.

Hab. N. S. WALES, Sydney (*Raynor*), 13 ♂, Bathurst, Mt. Kosciusko, type \dagger *chrysochroa* in Coll. Meyrick; VICTORIA, Melbourne (*Lucas*), 1 ♂ type. *Exp.* 20–24 millim.

*1079. *Thallarcha partita*.

Eutane partita, Wlk. Char. Lep. Het. p. 64 (1869); Kirby, Cat. Het. p. 298.

Eutane tineoides, Feld. Reis. Nov. pl. 106. f. 15 (1875); Kirby, Cat. Het. p. 296.

Pitane amanda, Feld. Reis. Nov. pl. 140. f. 36 (1875); Kirby, Cat. Het. p. 296.

♂. Orange; palpi, frons, antennae, patagia except at extremity, thorax, and the greater part of legs black; abdomen banded with black. Fore wing with the costa black to the antemedial band,

which is somewhat oblique and below submedian fold bent inwards and linear; a medial somewhat oblique band expanding at middle and with irregular edges; a broader band from costa before apex, curved to termen above tornus and connected by a short fascia with a patch on apical part of termen. Hind wing with large apical black patch; cilia with a black patch below submedian fold.

Hab. N. S. WALES; VICTORIA. *Exp.* 22 millim. Type † *amanda* in Coll. Rothschild.

1080. *Thallarcha lochaga*. (Plate XXXIII. fig. 30.)

Comarchis lochaga, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 742 (1886); Kirby, Cat. Het. p. 296.

♂. Head and tegulae yellowish white; palpi, frons, and antennae blackish; thorax blackish, with yellowish-white patches on pro- and metathorax and at extremity of patagia; pectus, legs, and abdomen orange-yellow. Fore wing yellowish white; the basal part of costa streaked with black; a curved slightly waved purplish-black antemedial band, with a yellower patch beyond it between discal and submedian folds; a somewhat oblique purplish-black medial band angled outwards below costa and expanding somewhat at middle; a curved band from costa before apex to termen above tornus, connected by a fascia with a lunulate terminal patch below apex. Hind wing orange-yellow, with fuscous apical patch.

Hab. N. S. WALES, Sydney (*Mathew, Raynor*), 2 ♂. *Exp.* 26 millim.

*1081. *Thallarcha oblita*.

Pitane oblita, Feld. Reis. Nov. pl. 140. f. 23 (1875); Kirby, Cat. Het. p. 296.

♂. White; palpi, frons, antennae, a band across patagia, and thorax black; fore and mid tibiae and tarsi fuscous; abdomen yellowish. Fore wing with the costa black to the antemedial black band, which is oblique from costa to submedian fold, then incurved, and with a fulvous patch from it in submedian interspace to the outer of the two medial waved lines, the inner being angled outwards below costa and on vein 1, the outer incurved and obsolescent from below costa to median nervure; a subterminal spot on costa; a li from vein 5 strongly angled inwards at vein 3, then bent outwards to termen above tornus; some black marks on termen from below apex to vein 4 connected by streaks with the subterminal line. Hind wing yellowish, the apex slightly suffused with fuscous.

Hab. N. S. WALES, type † ♂ in Coll. Rothschild. *Exp.* 22 millim.

1082. *Thallarcha staurocola*. (Plate XXXIII. fig. 14.)

Comarchis staurocola, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 743 (1886); Kirby, Cat. Het. p. 296.

♂. Head and tegulae white; palpi, frons, antennae, and thorax black-brown; legs and abdomen yellow. Fore wing white; a dark

fascia on costa from base to the curved antemedial line; a post-medial band angled inwards at middle, where it expands into a patch conjoined to the antemedial line; a wedge-shaped spot from costa before apex, conjoined to a large triangular patch on middle of terminal area. Hind wing yellow, with apical fuscous patch.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♂; N. S. WALES, Sydney (*Raynor*), 1 ♂. *Exp.* 22 millim. Type † in Coll. Meyrick.

*1083. *Thallarcha mochlina*. (Plate XXXIII. fig. 18.)

Comarchis mochlina, *Turner*, Trans. Roy. Soc. S. Austr. 1899, p. 20.

♀. Pale yellow; palpi tinged with fuscous; patagia and thorax banded with fuscous; fore tibiæ and tarsi streaked with fuscous. Fore wing with somewhat oblique medial blackish band with a slight yellowish mark on it in cell, its inner edge somewhat indented above inner margin; a band from costa beyond middle to tornus, slightly angled inwards on vein 3 and connected by a slight streak on vein 5 with a patch on apical part of termen. Hind wing with fuscous patch at apex, extending to vein 3.

Hab. QUEENSLAND, Brisbane (*C. J. Wild*), type † ♀ in Coll. *Turner*. *Exp.* 20 millim.

Genus PALÆOSICCIA, nov.

Type, *P. punctata*.

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons, which is tufted with long hair; antennæ of male bipectinate, with moderate branches; tibiæ with the spurs long. Fore wing short and broad; vein 2 from middle of cell; 3 from well before angle; 5 from above angle; 6 from just below upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 curved and approximated to 12. Hind wing with vein 2 from just beyond middle of cell; 3, 4 from angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

1084. *Palæosiccia punctata*, n. sp.

♂. White, slightly tinged with ochreous; palpi, lower part of frons, antennæ, fore and mid legs tinged with fuscous. Fore wing with the costal edge blackish; black spots at base of costa and cell, the latter with some brownish suffusion beyond it; a black spot on



Fig. 361.—*Palæosiccia punctata*, ♂. 1.

costa before middle, with an indistinct line arising from it angled outwards on median nervure and with black points at median

nervure and vein 1; a black point in middle of cell and a prominent discoidal spot; an indistinct line from costa just beyond middle, strongly bent outwards round the discoidal spot, then minutely dentate; a very strongly curved postmedial series of points with a large spot at costa; a spot on costa before apex, another on middle of termen, and a point above tornus. Hind wing with discoidal point.

Hab. SIERRA LEONE (Clements), 1 ♂ type. *Exp.* 18 millim.

Genus PHILENORA.

	Type.
<i>Philenora</i> , Rosenst. A. M. N. H. (5) xvi. p. 382 (1885)	<i>undulosa</i> .
<i>Seadora</i> , Meyr. P. Linn. Soc. N. S. W. (2) i. p. 731 (1886)	<i>omophanes</i> .
<i>Notata</i> , Hmps. Ill. Het. viii. p. 47 (1891)	<i>parva</i> .
<i>Ochrota</i> , Kirby, Cat. Het. p. 322 (1893)	<i>unicolor</i> .
<i>Diphtheraspis</i> , Meyr. P. R. Soc. Queensland, viii. p. 74 (1894).	<i>modica</i> .
<i>Bettonia</i> , Butl. P. Z. S. 1898, p. 418	<i>unicolor</i> .

Proboscis fully developed; palpi porrect, not or hardly reaching beyond frons; antennæ of male ciliated; tibiæ with the spurs moderate; abdomen clothed with rough hair. Fore wing with the costa arched, the termen short; vein 2 from middle of cell; 3 from long before angle; 5 from above angle; 6 from below upper angle; 7, 8 stalked; 9, 10 stalked; 11 free, oblique. Hind wing with vein 2 from long before angle of cell; 3 from near angle; 5 from above angle; 6, 7 stalked; 8 from middle of cell.

SECT. I. (*Notata*). Fore wing narrow; male with large elliptical patch of black androconia in, below, and beyond cell of fore wing on underside, and a similar patch on upperside of hind wing below costa.

- A. Fore wing with postmedial line *modica*.
 B. Fore wing without postmedial line *parva*.

1085. *Philenora modica*. (Plate XXXIII. fig. 23.)

Diphtheraspis modicus, Lucas, P. R. Soc. Queensland, viii. p. 74 (1894).

Pale straw-yellow. Fore wing with fuscous postmedial line inwardly oblique from costa to vein 6, then erect and expanding somewhat at inner margin; the patches of androconia on underside of fore wing and upperside of hind wing rufous.

Hab. QUEENSLAND, Brisbane (Turner), 1 ♂, 1 ♀. *Exp.* 20 millim.

1086. *Philenora parva*.

Notata parva, Hmps. Ill. Het. viii. p. 48, pl. 139. f. 5 (1891); id. Moths Ind. ii. p. 102; Kirby, Cat. Het. p. 326.

♂. Pale straw-yellow. Hind wing whitish except towards termen; the patches of androconia on upperside of hind wing and underside of fore wing fuscous black.

Hab. NILGIRIS (Hampson), 1 ♂ type. *Exp.* 16 millim.



Fig. 362.

Philenora parva, ♂. 1.
 (From Moths Ind.
 vol. ii.)

SECT. II. Wings of male without patches of androconia.

A. Fore wing narrow.

- a. Fore wing with the ground-colour white *marmorea*.
 b. Fore wing with the ground-colour yellowish or reddish.
 *a*¹. Fore wing with antemedial line
 *a*². Fore wing with the antemedial line prominent, black. *placida*.
 *b*². Fore wing with the antemedial line indistinct.
 *a*³. Fore wing without black point in middle of cell,
 the lines defined by whitish..... *parvula*.
 *b*³. Fore wing with black point in middle of cell, the
 lines not defined by whitish..... *bipuncta*.
*b*¹. Fore wing with antemedial series of spots angled on
 median nerve..... *punctata*.
*c*¹. Fore wing with three obliquely placed antemedial black
 points..... *M-nigrum*.
*d*¹. Fore wing uniform ochreous, with black points in cell
 and on discocellulars..... *bijuga*.

1087. *Philenora marmorea*.

Eugoa marmorea, Butl. Cist. Ent. iii. p. 9 (1882); Kirby, Cat. Het. p. 379.

♂. Head, tegulae, and patagia brown; thorax and abdomen grey tinged with brown. Fore wing white; a triangular brown patch on costal area and cell from base to middle, its outer edge oblique,



Fig. 363.—*Philenora marmorea*, ♂. $\frac{3}{2}$.

a black spot in lower part of cell just beyond it; a post-medial brown spot on costa extending as a triangular shade to lower angle of cell; a spot on costa before apex; a somewhat quadrate patch on outer area from middle of termen to tornus, extending to lower angle of cell, enclosing a white spot at tornus, and with rather irregular edges. Hind wing whitish, slightly tinged with brown.

Hab. MADAGASCAR, Betsileo (*Cowan*), 1 ♂ type. *Exp.* 16 millim.

1088. *Philenora placida*. (Plate XXXIII. fig. 24.)

Eugoa placida, Butl. Cist. Ent. iii. p. 10 (1882); Kirby, Cat. Het. p. 379.

Ochreous white, tinged with pale reddish brown; palpi blackish at sides; metathorax with black patch; abdomen grey towards base. Fore wing with the costal and terminal areas most strongly tinged with rufous; a prominent black-brown antemedial line slightly angled below costa, then oblique; black points in middle of cell and on discocellulars; a postmedial line slightly angled on vein 6, then incurved and becoming diffused and blackish below vein 2; traces of a sinuous subterminal line. Hind wing yellowish white.

Hab. MADAGASCAR, Betsileo (*Cowan*), 1 ♂ type. *Exp.* 22 millim.

1089. *Philenora parvula*. (Plate XXXIII. fig. 16.)

Lyseia parvula, Butl. Cist. Ent. iii. p. 9 (1882); Kirby, Cat. Het. p. 339.

♂. Ochreous white; head, thorax, and abdomen tinged with rufous. Fore wing suffused with rufous and with a darker rufous patch on basal area from costa to submedian fold; an antemedial line oblique from costa to median nervure, where it is angled, angled inwards on vein 1 and defined by whitish on inner side; a black point at end of cell; an indistinct oblique postmedial line with a black point on it in discal fold; a pale subterminal line oblique from costa to vein 6, where it is angled. Hind wing ochreous white, the apex slightly tinged with brown.

Hab. MADAGASCAR, Betsileo (Cowan), 1 ♂ type. *Exp.* 18 millim.

1090. *Philenora bipuncta*, n. sp. (Plate XXXIII. fig. 21.)

♂. Head, thorax, and abdomen pale brownish, the last with the claspers yellowish. Fore wing pale brownish slightly irrorated with black; the costal edge black towards base; a very indistinct antemedial dark line oblique towards costa and angled on median nervure; a rather elongate black point in middle of cell, and a discoidal point on the indistinct, very oblique postmedial line; a very indistinct subterminal line, with darker spots at costa, middle and inner margin. Hind wing yellowish, the costal half brownish; an indistinct dark discoidal spot.

♀. Abdomen and hind wing wholly yellow.

Ab. 1. Fore wing with the ante- and postmedial lines prominent from costa to subcostal nervure, where they are connected by a black streak.

Hab. MADAGASCAR, Betsileo (Cowan), 1 ♀; CAPE COLONY, Tolini, Transkei (Miss F. Barrett), 2 ♂, type. *Exp.* 20–24 millim.

1091. *Philenora punctata*, n. sp. (Plate XXXIII. fig. 22.)

♀. Pale grey-brown. Fore wing with two obliquely placed black points at base; an antemedial series of black points very oblique from costa to median nervure, where it is angled; a prominent spot in middle of cell and discoidal lunule; a postmedial series of small spots, bent outwards below costa, angled at veins 6 and 4, then strongly incurved; a spot on middle of inner margin, and a short streak with a spot above it beyond middle; two subterminal points below costa and one above vein 4; a series of points on the cilia. Hind wing rather paler, with discoidal point; the cilia ochreous.

Hab. MADAGASCAR, 1 ♀ type. *Exp.* 28 millim.

*1092. *Philenora M-nigrum*. (Plate XXXIII. fig. 29.)

Nudaria M-nigrum, Mab. Bull. Soc. Ent. Fr. 1899, p. 270.

♀. Head, thorax, and fore wing pale reddish brown; abdomen

and hind wing pale yellow. Fore wing with very oblique series of black points from below middle of costa to inner margin; a discoidal point; a very oblique postmedial series of points, bent outwards from below costa to vein 4 and angled on veins 6 and 4; cilia chequered with fuscous.

Hab. MADAGASCAR, type † ♀ in Coll. Mabille. *Exp.* 24 millim.

*1093. *Philenora bijuga*. (Plate XXXIII. fig. 5.)

Lithosia bijuga, Mab. Bull. Soc. Ent. Fr. 1899, p. 270.

♀. Ochreous yellow. Fore wing with small black points at middle of cell and on discocellulars.

Hab. MADAGASCAR, type † ♀ in Coll. Mabille. *Exp.* 24 millim.

B. (*Philenora*). Fore wing broader.

a. Fore wing whitish with dark markings.

a¹. Hind wing orange-yellow.

a². Fore wing with broad band of brown suffusion beyond the medial line.

a³. Fore wing with the antemedial part of costal area white *aspectella*.

b³. Fore wing with the antemedial part of costal area dark *elegans*.

b². Fore wing without brown suffusion beyond the medial line *undulosa*.

b¹. Hind wing brownish, with the inner margin and cilia yellow *chionastis*.

c¹. Hind wing white *nularidia*.

b. Fore wing orange.

a¹. Fore wing with the medial black band conjoined to a band on terminal area *placochrysa*.

b¹. Fore wing with black points in cell and on discocellulars *unicolor*.

c. Fore wing reddish fuscous *omophanes*.

1094. *Philenora aspectella*.

Æcophora aspectella, Wlk. xxix. 679 (1864); Kirby, Cat. Het. p. 296.

Tinea æcophorella, Wlk. xxxv. 1813 (1866).

Head and tegulæ white; palpi and antennæ brownish; thorax black-brown, with white spot on metathorax; pectus, legs, and abdomen orange. Forewing



Fig. 364.—*Philenora aspectella*, ♂. 3.

and waved from costa to this point; an ill-defined sinuous subterminal line, with a large irregular terminal patch beyond it below apex and expanding into a large rounded patch at tornus; the costa and cilia yellowish, the latter intersected with brown towards apex

and brown towards tornus. Hind wing orange-yellow, with more or less developed fuscous apical patch.

Hab. N. S. WALES, Moreton Bay (*Diggles*), 1 ♂ type, Sydney (*Diggles*, *Raynor*), 2 ♂, 1 ♀ type *œcophorella*; VICTORIA. *Exp.* 18-20 millim.

1095. *Philenora elegans*. (Plate XXXIII. fig. 19.)

Pallene elegans, Butl. Trans. Ent. Soc. 1877, p. 334; Kirby, Cat. Het. p. 296.

Comarchis lunata, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1083 (1890); Kirby, Cat. Het. p. 296.

♂. Head and tegulæ white; palpi and antennæ blackish; thorax black-brown; pectus, legs, and abdomen orange. Fore wing yellowish white; the base black-brown, conjoined by a fascia on costa to the broad medial band, which is joined at lower angle of cell by the oblique minutely waved postmedial line, which has triangular whitish patches before it on costal area and beyond it on inner area; the terminal area black-brown, with indistinct sinuous whitish subterminal line. Hind wing orange-yellow, with apical fuscous patch.

This may be a darker form of *aspectella*.

Hab. AUSTRALIA, 1 ♂ type; QUEENSLAND, Brisbane; N. S. WALES, Sydney (*Raynor*), 1 ♂. *Exp.* 22 millim.

1096. *Philenora undulosa*. (Plate XXXIII. fig. 25.)

Acontia undulosa, Wlk. xii. 797 (1857); Kirby, Cat. Het. p. 301.

Termessa lyelliana, Lower, Tr. R. Soc. S. Austr. xvii. p. 149 (1892).

♀. Head and tegulæ white; palpi and antennæ black; thorax black, with white patches on meso- and metathorax; pectus and legs yellow and black; abdomen orange-yellow. Fore wing white, with the inner margin narrowly orange; a waved subbasal black line, with a black fascia from it on costal area to the medial line, which is very oblique from costa to middle of cell, then strongly excurved to submedian fold, where it is angled inwards, and angled outwards on vein 1; the costal edge yellow beyond middle; a black discoidal point; the postmedial line minutely dentate, oblique from costa to vein 5, excurved to vein 3, then bent inwards and sinuous to inner margin; a diffused band beyond it with dentate outer edge, oblique from costa to vein 5, then bent outwards to termen above tornus; a terminal series of black points. Hind wing orange-yellow, with fuscous suffusion on apical area.

Hab. TASMANIA, 1 ♀ type. *Exp.* 30 millim.

1097. *Philenora chionastis*. (Plate XXXIII. fig. 12.)

Scandora chionastis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 801 (1886), ♂; Kirby, Cat. Het. p. 348.

Comarchis obliquata, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1082 (1890), ♀; Kirby, Cat. Het. p. 296.

♂. Head and thorax brown, mixed with white; abdomen yellow.

Fore wing whitish, with pale reddish-brown patch on basal half of costal area; a dark point at middle of cell, with oblique line from it to inner margin; a dark discal point; the terminal area from the medial line and beyond the cell pale reddish-brown with white patches, a waved white postmedial line, and a white terminal band except at apex; cilia white above and below middle. Hind wing pale brownish, thinly scaled, the inner area and cilia yellowish.

♀. Fore wing with the area beyond the medial line more suffused with red-brown and the white patches reduced.

Hab. QUEENSLAND, Brisbane, ♀ *obliquata* † (*Lucas*), Coll. Meyrick; N. S. WALES (*Damel*), 1 ♂. *Exp.* 16 millim. Type † in Coll. Meyrick.

1098. *Philenora nudaridia*, n. sp. (Plate XXXIII. fig. 4.)

White. Fore wing with minutely waved antemedial fuscous line angled outwards in cell; a discoidal spot on the medial line, which is bent inwards below the cell and connected with the antemedial line by a fascia; a large fuscous patch on disk with the veins on it near lower angle of cell white, the patch connected with the discoidal spot and by short lines with the costa and inner margin; spots on costa just before apex and on middle of termen.

Hab. QUEENSLAND, Cairns (*Eichhorn*), 1 ♀ type, ♂ in Coll. Staudinger. *Exp.* 20 millim.

*1099. *Philenora placochrysa*. (Plate XXXIII. fig. 27.)

Scædora placochrysa, Turner, Trans. R. Soc. S. Austr. 1899, p. 18.

♂. Orange; palpi blackish; a black band on thorax and end of patagia; fore and mid tibiæ banded with black; abdomen black, orange at base and extremity. Fore wing with the base black; a medial black band with its outer edge angled outwards to the black terminal area; a small triangular orange spot on termen below middle. Hind wing with broad black terminal band expanding somewhat towards inner margin.

Hab. QUEENSLAND, Cairns (*C. J. Wild*), type † ♂ in Coll. Turner. *Exp.* 18 millim.

1100. *Philenora unicolor*.

Crocota unicolor, Hopff. Monatsber. Akad. Berl. 1857, p. 422; id. Peters'

Reise Mossamb., Ins. 427, pl. 28. f. 1 (1862); Kirby, Cat. Het. p. 352.

Setina quadripunctata, Wlk. xxxi. 236 (1864); Kirby, Cat. Het. p. 359.

Setina imminuta, Saalm. Ber. Senck. Ges. 1879, p. 262; id. Lep. Madag. i. p. 167, pl. 6. f. 78; Kirby, Cat. Het. p. 358.

Lithosia rubriceps, Rogenh. Ann. Nat. Hofmus. vi. p. 463, pl. 15. f. 11 (1891); Kirby, Cat. Het. p. 915.

Bettonia ferruginea, Butl. P. Z. S. 1898, p. 418, pl. 32. f. 5.

Orange-yellow; antennæ and legs mostly blackish. Fore wing with black points in middle of cell and on discocellulars.

Ab. 1. Fore wing with two subapical black points.—Natal.

Ab. 2. *imminuta*. Fore wing with postmedial black point on vein 1 and subterminal points above veins 1, 4, 6, and 7.—Annshaw.

Ab. 3. Fore wing with the cilia black.—Somaliland.

Ab. 4. Fore wing also with a short subterminal bar from costa, developed on underside into a short broad band.

Hab. MADAGASCAR, type + *imminuta* in Mus. Frankfort; SOMALILAND (Gillett), 1 ♀; BR. E. AFRICA, Teita (Jackson), 1 ♂, Voi (B. Hon), 1 ♀, type *ferruginea*; MOZAMBIQUE; MASHONALAND, Salisbury (Marshall), 2 ♂; NATAL, Weenen, 1 ♂; CAPE COLONY, Bedford (Mansell Week), Annshaw (Miss F. Barratt), 1 ♂. *Exp.* 20–24 millim.

*1101. *Philenora omophanes*.

Scotodora omophanes, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 731 (1886); Kirby, Cat. Het. p. 348.

♂. Head, thorax, and abdomen light reddish fuscous, with a few white scales. Fore wing thinly scaled, light reddish fuscous; a somewhat curved fuscous line from one-third costa to middle of inner margin; a small discoidal spot; the postmedial line slightly angled at middle and sinuous on upper half; cilia reddish fuscous, barred with dark fuscous. Hind wing thinly scaled, pale fulvous.

Hab. VICTORIA, Melbourne. *Exp.* 14 millim. This species is unknown to me.

Genus **CYCLOMILTA**, nov.

Type, *C. melanolepia*.

Proboscis aborted; palpi minute; antennæ of female with bristles and cilia; tibiæ with the spurs moderate. Fore wing elliptical, the costa and inner margin strongly arched, the apex rounded; vein 2 from middle of cell curved at base; 3 from well before angle; 5 from above angle; 6 from well below upper angle; 7, 8, 9, 10 stalked, 7 from beyond 9; 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 shortly stalked; 5 from above angle; 7 from before upper angle; 8 from towards end of cell.

1102. *Cyclomilta melanolepia*, n. sp.

Mitochrista melanolepia, Dudgeon, J. Bomb. Nat. Hist. Soc. 1899, pl. ii. f. 14, ined.

♀. Orange-yellow. Fore wing with antemedial black spot in



Fig. 365.—*Cyclomilta melanolepia*, ♀. 1.

cell; a large fuscous patch extending from middle of wing to near termen and from below costa to inner margin irrorated with a few black scales, its inner edge nearly straight, its outer produced between veins 3 and 5. Hind wing pale yellow.

Hab. SIKHIM, 1800 feet (Dudgeon), 1 ♀ type. *Exp.* 28 millim.

Genus **PALPIDIA.**

Palpidia, Dyar, J. N. Y. Ent. Soc. vi. p. 33 (1898) Type.
pallidior.

Palpi obliquely upturned, slender, and reaching well above vertex of head; antennæ of female simple; tibiæ with the spurs long. Fore wing narrow and elongate; vein 2 from beyond middle of cell; 3, 4 shortly stalked; 5 from angle; 7, 8, 9 stalked; 10 from angle; 11 free. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 from well above angle; 6, 7 from angle; 8 from before middle of cell.

*1103. *Palpidia pallidior*. (Plate XXXIII. fig. 7.)

Palpidia pallidior, Dyar, J. N. Y. Ent. Soc. vi. p. 34 (1898).

♀. Ochreous white. Fore wing with the interspaces thickly irrorated with fuscous scales. Hind wing and abdomen white.

Hab. U.S.A., Florida, Cocconut Grove (*E. A. Swarz*), 1 ♀ type in U.S. Nat. Mus. *Exp.* 30 millim. This species is unknown to me; figured from a drawing from type.

Genus **LERINA.**

Lerina, Wlk. ii. 477 (1854) Type.
incarnata.

Proboscis small; palpi porrect, reaching just beyond the frons and clothed with long hair; head, thorax, and abdomen clothed with long hair; antennæ bipectinate, in male with moderate branches, in female with very short branches; tibiæ with the spurs short. Fore wing with vein 2 from beyond middle of cell; 3 from well before angle; 5 from or from above angle; 6 from upper angle; 7, 8, 9 stalked; 10 from cell in male, stalked with 7, 8, 9 in female; 11 free. Hind wing with vein 2 from middle of cell; 3 from near angle; 4, 5 from angle; 6, 7 from upper angle or shortly stalked; 8 from middle of cell.

1104. *Lerina incarnata*.

Lerina incarnata, Wlk. ii. 477 (1854); Druce, Biol. Centr.-Am., Het. i. p. 122, & ii. p. 394, pl. 77. f. 14; Kirby, Cat. Het. p. 287.

Head, tegulæ, and patagia deep crimson; palpi, frons, antennæ, and thorax black; abdomen with the basal half black; the terminal half deep crimson, with dorsal series of black points; wings deep bronze-green.



Fig. 366.—*Lerina incarnata*, ♂. 1.

Hab. MEXICO, type ♂, W. Mexican tableland, Coll. H.M.S. 'Herald,' 1 ♀, Durango (*Becker*), 1 ♂, Salvin-Godman Coll. *Exp.* 46 millim.

Genus **BRUCEIA**.

Type.

Bruceia, Neum. J. N. Y. Ent. Soc. i. p. 35 (1893) *pulverina*.

Proboscis aborted, minute; palpi upturned, not reaching vertex of head; frons with rounded prominence; antennæ minutely serrate; hind tibiæ with the medial spurs absent; abdomen clothed with rough hair. Fore wing rather narrow; vein 2 from well beyond middle of cell; 3 from close to angle; 4, 5 from angle or separate; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from beyond middle of cell; 3 from upper angle; 5 from or from above angle; 6, 7 strongly stalked; 8 from before angle of cell.

*1105. *Bruceia pulverina*.*Bruceia pulverina*, Neum. J. N. Y. Ent. Soc. i. p. 36 (1893).*Bruceia hubbardi*, Dyar, J. N. Y. Ent. Soc. vi. p. 33 (1898).

♂. Grey with an ochreous tinge and irrorated with black. Fore wing with a very ill-defined medial band, less irrorated with black, dividing at median nervure into two arms on each side of a discoidal

Fig. 367.—*Bruceia pulverina*, ♂. 1.

patch and not reaching costa; an indistinct irregularly sinuous subterminal line angled below costa, the area beyond it less irrorated; a terminal series of points. Hind wing without black irroration.

♀. Fore wing without the subterminal line or terminal points.

Hab. U.S.A., Colorado (*Bruce*), Arizona, Chiricahwa Mts., type ♀ *hubbardi* in U.S. Nat. Mus. *Exp.*, ♂ 24–32, ♀ 36 millim.

Genus **HÆMATOMIS**, nov.Type, *H. mexicana*.

Proboscis aborted, minute; palpi slender, porrect, reaching to just beyond frons, which is rounded; antennæ of male serrate and ciliated; tibiæ with the spurs short. Fore wing long and narrow, the costa slightly arched, the termen oblique; cell very long; vein 2 oblique from well before angle; 3, 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10 free; 11 anastomosing with 12. Hind wing with the cell long; vein 2 from well before angle; 3, 4 from angle; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

- A. Fore wing with yellowish streak through the cell and fasciæ on costa and inner margin *mexicana*.
- B. Fore wing with the costal edge only pale..... *uniformis*.

1106. *Hæmatomis mexicana*.

Lithosia mexicana, Druce, Biol. Centr.-Am., Hct. i. p. 131, pl. 13. ff. 2, 3 (1885); Kirby, Cat. Hct. p. 338.

♂. Head yellowish, palpi, frons, and antennæ tinged with fuscous;

thorax fuscous; patagia pale crimson with the extremities fuscous; metathorax with yellow patch; abdomen greyish. Fore wing fuscous grey, with yellow fasciæ on costa, from base through the cell, slightly expanding to termen below apex, along vein 2 from near



Fig. 368.—*Hæmatomis mexicana*, ♂. †.

its base to termen, and on inner margin. Hind wing pale yellow, the costa tinged with fuscous.

♀. Hind wing fuscous, with yellowish fascia from base through the cell to termen.

Hab. ARIZONA; MEXICO, Durango (*Forrer*), Vera Cruz (*Rümeli*); GUATEMALA, S. Geronimo, Pantaleon (*Champion*) type, Godman-Salvin Coll. *Exp.*, ♂ 22, ♀ 24 millim.

1107. *Hæmatomis uniformis*. (Plate XXXIII. fig. 28.)

Hæmatomis uniformis, Schaus, J. N. Y. Ent. Soc. vii. p. 215 (1899).

♂. Head, thorax, and fore wing greyish fuscous with a slight purplish tinge; frons pale; patagia pale pink; abdomen blackish, the anal tuft brownish. Fore wing with the costal edge pale. Hind wing fuscous, whitish towards base, or whitish with the apical area and termen suffused with fuscous.

Hab. MEXICO, Oaxaca (*Schaus*), 1 ♂. *Exp.* 22 millim. Type † in Coll. Schaus.

Genus **HYPOPREPPIA**.

Hypoprepia, Hübn. Zutr. Ex. Schmett. iii. p. 21 (1825) Type. *fuscosa*.

Proboscis well developed; palpi porrect, reaching to beyond frons; antennæ short, thick, minutely serrate, and with cilia and bristles; tibiæ with the spurs short. Fore wing with the costa arched, the apex rounded; vein 2 from middle of cell, curved towards base; 3 from before angle; 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from well before angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from before middle of cell.

- | | |
|---|---------------------|
| A. Ground-colour of fore wing wholly scarlet..... | <i>miniata</i> . |
| B. Ground-colour of fore wing yellow and crimson | <i>fuscosa</i> . |
| C. Ground-colour of fore and hind wings yellow | <i>cadaverosa</i> . |
| D. Ground-colour of fore wing fuscous brown, of hind wing whitish | <i>inculta</i> . |

1108. *Hypoprepia miniata*. (Plate XXXIII. fig. 8.)

Lithosia miniata, Kirby, Richardson's Fauna Bor.-Am. iv. p. 305 (1837); Kirby, Cat. Het. p. 288.

Gnophria vittata, Harris, Rep. Ins. Mass. p. 241 (1841).

Hypoprepia subornata, Neum. & Dyar, Can. Ent. xxv. p. 124 (1893).

Head, thorax, and abdomen brilliant scarlet; palpi and antennæ

black; legs banded with black; abdomen with small fuscous patch on dorsum in male, a large patch in female. Fore wing bright scarlet, with broad fuscous subcostal fascia from close to base to just before termen; a fuscous fascia from submedian fold to below vein 1 from near base to tornus; a short fascia from lower angle of cell to near termen between veins 3 and 5; cilia fuscous. Hind wing crimson, the terminal half fuscous black with irregular inner edge.

Ab. 1. subornata. Hind wing with the terminal half crimson.

Hab. CANADA, Renfrew Co., Grote Coll., 2 ♂; U.S.A., N. Atlantic States, 1 ♂, 3 ♀, Grote and Zell. Colls. *Exp.*, ♂ 32, ♀ 40 millim.

Egg. Dyar, Ent. News, Philad. iii. p. 246 (1893).

Subspherical, much flattened on basal side, coarsely reticulated with roundly hexagonal reticulations; dark shining lead-colour with a slight metallic green tinge; diameter 0.6 millim. Laid separately and loose.

Larva. 1st stage. Head cordate, black, shining, about .3 millim. wide; body deeply incised between the segments, cylindrical; warts inconspicuous; hairs distinct, blackish; orange, with dark stripe from near head to beyond middle, becoming later a double dorsal brownish stripe; warts small, subconical, each bearing a single minutely spinulate hair.

1109. *Hypoprepia fucosa*.

Hypoprepia fucosa, Hübn. Zutr. Ex. Schmett. iii. p. 21, ff. 471, 472 (1825); Stretch, Zyg. & Bomb. N. Am. p. 46, pl. 2. f. 12; Kirby, Cat. Het. p. 288.

Atolmis tricolor, Fitch, Reps. Ins. N. Y. iii. p. 138 (1856).

Hypoprepia plumbea, II. Edw. Ent. Am. ii. p. 9 (1886); Kirby, Cat. Het. p. 288.

Head orange and crimson, or orange; palpi and antennæ black; thorax crimson, the tegulæ often orange; a fuscous patch on mesothorax; legs orange, banded with black; abdomen crimson, with more or less fuscous on dorsum, the anal tuft orange. Fore wing orange, with the medial part of terminal area, except the termen itself, crimson, or crimson with the costal area orange; a broad



Fig. 369.—*Hypoprepia fucosa*, ♂. $\frac{1}{2}$.

fuscous subcostal fascia from near base to just before or reaching termen; a broad fuscous fascia from submedian fold to just below vein 1 from near base to tornus; a short fascia between veins 3 and 5 from lower angle of cell to near or reaching termen. Hind wing crimson, with broad terminal fuscous band with sinuous inner edge.

Ab. 1. *plumbea*. Hind wing with the terminal fuscous band narrow; a fine yellow line on termen.

Hab. CANADA, Renfrew Co., 2 ♂, 1 ♀, Grote Coll.; U.S.A., Massachusetts, 3 ♂, Texas, 5 ♂, 2 ♀, Zell. Coll. *Exp.* 30-34 millim.

*1110. *Hypoprepia cadaverosa*.

Hypoprepia cadaverosa, Streck. Proc. Davenport Acad. ii. p. 270, pl. 9. f. 4 (1878); Kirby, Cat. Het. p. 288.

♂. Yellow; palpi at tips and antennæ black; legs banded with black. Fore wing with the basal part of costal edge black; a broad fuscous subcostal fascia from near base to just before termen; a broad fascia from near base to near termen, extending from cell and vein 2 to below vein 1 and almost joined by a fascia from origin of vein 2 below end of cell and between veins 3 and 5 to near termen; cilia blackish. Hind wing with the apical part of costal area fuscous, and some fuscous suffusion just inside termen below apex and towards tornus.

Hab. U.S.A., Colorado. *Exp.* 40 millim.

*1111. *Hypoprepia inculta*. (Plate XXXIII. fig. 32.)

Hypoprepia inculta, H. Edw. Papilio, ii. p. 13 (1882); Kirby, Cat. Het. p. 288.

Dark fuscous brown; shoulders greyish. Fore wing with narrow yellowish-white stripe from base just below median nervure, becoming obsolescent towards termen. Hind wing whitish, slightly tinged with fuscous towards margins.

Hab. U.S.A., Colorado. *Exp.* 34-36 millim.

Genus **DIARHABDOSIA**, nov.

Proboscis fully developed; palpi slender, porrect, extending as far as frons, which is smooth and rounded; antennæ of male with bristles and cilia; tibiæ with the spurs rather short. Fore wing narrow, the costa arched; the termen obliquely rounded; the discal fold strong; the cell long; vein 2 from long before angle of cell, slightly curved towards base; 3 near angle, 5 from above angle; 6 from below upper angle; 7, 8, 9 stalked, 7 from beyond 9; 10, 11 free, 11 curved and approximated to 12. Hind wing with the cell long; vein 2 from long before angle; 3, 4 strongly stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

- A. Fore wing with transverse interrupted black lines *minima*.
 B. Fore wing without transverse lines *laudamia*.

1112. *Diarhabdosia minima*.

Eustixis minima, Butl. Trans. Ent. Soc. 1878, p. 55; Druce, Biol. Centr.-Am., Het. ii. p. 404, pl. 78. f. 22.

♀. Head and thorax white; antennæ tinged with fuscous; legs yellow, with fuscous bands on tibiæ; abdomen orange. Fore wing yellowish white; black points at base of costa and cell; interrupted antemedial, medial, and postmedial lines oblique from costa

to subcostal nervure, bent outwards in cell, then inwards, the last with a spot beyond it above vein 5 below a striga from costa; dark marks at middle of termen and tornus. Hind wing orange. Under-side of fore wing orange, with pink suffusion in cell.

Ab. 1. Abdomen and hind wing pink; fore wing suffused with pink on upperside and on underside except marginal areas.—Mexico.

Hab. MEXICO, Jalisco (*Schumann*), 1 ♀, Godman-Salvin Coll.: AMAZONS, R. Jutahi (*Trail*), 1 ♀ type. *Exp.* 20 millim.

1113. *Diarhabdosia laudamia*.

Lithosia laudamia, Druce, Biol. Centr.-Am., Hct. i. p. 131, pl. 13. f. 4 (1885); Kirby, Cat. Hct. p. 338.

Lithosia pusa, Dognin, Le Nat. 1892, p. 185; id. Lép. Loja, p. 88, pl. 9. f. 7.

Lithosia peruviana, Schaus, P. Z. S. 1894, p. 239.

♂. Head, thorax, and abdomen yellow; palpi, frons, and antennæ fuscous; pale crimson patches on patagia and mesothorax. Fore wing yellowish brown, with ill-defined yellow fasciæ on costa and in discal fold; a prominent fascia on inner area, very narrow on basal third, then expanding, and on termen extending up to vein 5. Hind wing yellow,

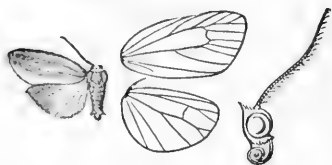


Fig. 370.

Diarhabdosia laudamia, ♂. 3.

with large apical fuscous patch extending down to vein 3.

♀. Abdomen and hind wing fuscous.

Hab. GUATEMALA, Vera Paz (*Champion*); COSTA RICA, Irazu, Cache (*Rogers*), Candelaria Mts. (*Underwood*); PANAMA, Chiriqui (*Champion*), type, Godman-Salvin Coll.; ECUADOR, Loja, type† *pusa* in Coll. Dognin; PERU, type† *peruviana* in Coll. Schaus; BRAZIL, 1 ♀, Rio Janeiro. *Exp.*, ♂ 24, ♀ 28 millim.

Genus EURYLOMIA.

Type.

Eurylomia, Feld. Reis. Nov. p. 5 (1874), non deser..... *cordula*.

Proboscis fully developed; palpi porrect, extending to beyond the frons; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing of male with the costa dilated at middle, the inner margin strongly lobed; vein 1 and median nervure curved; vein 2 from beyond middle of cell; 3 from well before angle; 5 from above angle; 6 from upper angle; 7, 8, 9 stalked; 11 curved and approximated to 12; female with the costa and inner margin not dilated, the veins less curved. Hind wing with vein 2 from middle of cell; 3 from before angle; 5 absent; the discocellulars strongly angled; 8 from middle of cell; the costal area of male strongly lobed.

SECT. I. Fore wing with vein 10 stalked with 7, 8, 9; hind wing with veins 6, 7 stalked.

1114. *Eurylomia ochreata*.

Eurylomia ochreata, Druce, Biol. Centr.-Am., Hct. i. p. 134, pl. 13. f. 7 (1885); Kirby, Cat. Hct. p. 405.

♀. Orange; antennæ black; tibiæ and tarsi almost entirely

black; abdomen with lateral black fasciæ. Fore wing with the costa black; the inner margin black except towards base; a

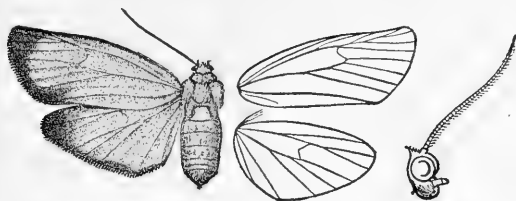


Fig. 371.—*Eurylomia ochreatea*, ♀. 1.

terminal greenish-black band expanding widely towards apex and at tornus. Hind wing with the apical area black; a rather narrow terminal black band with sinuous inner edge.

Hab. HONDURAS, R. Sarstoon (*Blancaneau*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 56 millim.

SECT. II. Fore wing with vein 10 free; hind wing with veins 6, 7 from cell.

1115. *Eurylomia cordula*.

Lithosia cordula, Boisd. Lép. Guat. p. 95 (1870); Kirby, Cat. Het. p. 405.

Eurylomia curvinervis, Feld. Reis. Nov. pl. 105. f. 26 (1874); Druce, Biol. Centr.-Am., Het. i. p. 134.

♂. Orange fulvous; antennæ black; tibiæ and tarsi streaked with black; anal tuft largely fuscous. Fore wing with the costa fuscous; an apical greenish-fuscous patch joined by a fascia from

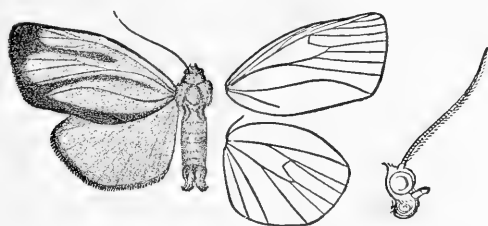


Fig. 372.—*Eurylomia cordula*, ♂. 1.

middle of cell; a curved fascia below the cell expanding towards the terminal band; a fascia on inner margin. Hind wing with the costal area suffused with fuscous, the termen and cilia fuscous.

♀. Fore wing with narrower fascia on inner margin; hind wing with more fuscous on apical area and termen.

Hab. MEXICO, Jalapa (*Hoega*), 1 ♂, Vera Cruz (*Rümeli*), 1 ♀, Godman-Salvin Coll.; HONDURAS. *Exp.* 50 millim.

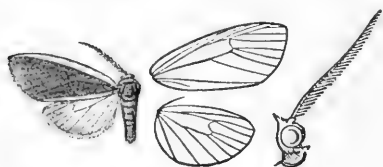
Genus **NEOPLYNES**, nov.Type, *N. cytheræa*.

Proboscis fully developed; palpi porrect, extending to just beyond frons, the first joint fringed with hair below; frons rounded; antennæ of male bipectinate to apex; tibiæ with the spurs short. Fore wing moderately broad, the costa slightly arched, the termen oblique; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 oblique. Hind wing with vein 2 from long before angle of cell; 3, 4 from angle; 5 from above angle; 6, 7 from upper angle; 8 from middle of cell.

- A. Fore wing fuscous, with ochreous fasciæ below costa and on inner margin *cytheræa*.
 B. Fore wing uniform yellowish white *eudora*.

1116. *Neoplynes cytheræa*.

Lithosia cytheræa, Druce, A. M. N. H. (6) xiii. p. 177 (1894); id. Biol. Centr.-Am., Het. ii. p. 401, pl. 78. f. 13.

Fig. 373.—*Neoplynes cytheræa*, ♂. †.

♂. Head, thorax, and abdomen orange-yellow; palpi, frons, antennæ, patches on patagia, pectus, legs, and ventral surface of abdomen black. Fore wing fuscous brown, with yellow fasciæ below basal three-fourths of costa and on

inner margin. Hind wing yellow, suffused with brown towards costa.

Hab. MEXICO, Durango (*Becker*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 34 millim.

*1117. *Neoplynes eudora*. (Plate XXXIII. fig. 31.)

Pagara eudora, Dyar, Ent. News Philad. v. p. 198 (1894).

♂. Uniform yellowish white; neck ringed with orange; antennæ with the branches black.

Hab. U.S.A., Texas. *Exp.* 26 millim. Type† in U.S. Nat. Mus.

Genus **LEPTOPEPLA**, nov.Type, *L. procridiformis*.

Proboscis fully developed; palpi obliquely upturned, reaching to well beyond frons; antennæ of male bipectinate; tibiæ with the spurs moderate; wings sparsely clothed with scales. Fore wing with vein 2 from well beyond middle of cell; 3 from near angle; 4, 5 from angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 7, 8, 9 from towards apex; 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from before angle; 5 from well above angle; 6, 7 from upper angle; 8 from middle of cell.

1118. *Leptopepla procridiformis*, n. sp.

♂. Black-brown; wings with the interspaces thinly scaled and semihyaline.

Fig. 374.—*Leptopepla procridiformis*, ♂. 1.

Hab. BOLIVIA, Songo; E. PERU, Huayabamba (*Garlepp*), 1 ♂ type. *Exp.* 22 millim.

Genus **PARELICTIS**.

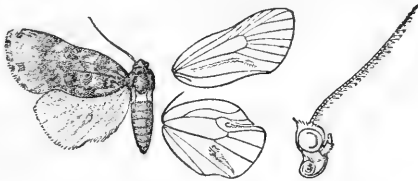
Parelictis, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 709 (1886)..... Type. *saleuta*.

Proboscis fully developed; palpi upturned, not reaching above vertex of head, roughly scaled; antennæ of male with bristles and cilia. Fore wing with vein 2 from well beyond middle of cell; 3 from near angle; 5 from above angle; 6 from below upper angle; 7, 8 and 9, 10 stalked; 11 free; male with a roughly-scaled furrow below vein 2; the costa and inner margin somewhat excised beyond middle. Hind wing with vein 2 from well beyond middle; 3, 4 coincident; 5 from above angle; 6, 7 stalked and contorted; 8 from middle of cell, much contorted in male, which has the apical part of costa lobed and truncate; a roughly-scaled excision below veins 6, 7, and a furrow in terminal part of submedian interspace.

1119. *Parelictis saleuta*.

Parelictis saleuta, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 709 (1886); Kirby, Cat. Het. p. 297.

Head and thorax fuscous mixed with black; palpi black mixed with pale ochreous; abdomen pale ochreous yellow; legs blackish ringed with white, the hind legs tinged with yellowish. Fore wing

Fig. 375.—*Parelictis saleuta*, ♂. 1.

whitish, densely irrorated with dark fuscous; about twelve diffused irregularly-curved subdentate dark fuscous lines formed by minute black striæ on a yellowish ground; veins obscurely yellowish; cilia fuscous and whitish, intersected with yellow. Hind wing ochreous yellow.

Hab. N. S. WALES, Sydney (*Mathew*), 1 ♂; VICTORIA. *Exp.* 37-39 millim.

Genus CASTULO.

	Type.
<i>Castulo</i> , Wlk. ii. 561 (1854).....	<i>plagiata</i> .
<i>Termessa</i> , Newm. Trans. Ent. Soc. (2) iii. p. 235 (1856).....	<i>shepherdi</i> .
<i>Cluaca</i> , Wlk. xxxi. 268 (1864).....	<i>rubricosta</i> .
<i>Clisobara</i> , Wlk. xxxi. 269 (1864).....	<i>catocalina</i> .
<i>Lerna</i> , Wlk. xxxiii. 805 (1865)	<i>nivosa</i> .

Proboscis fully developed; palpi upturned, not reaching vertex of head, and fringed with hair in front; tibiæ with the spurs long; abdomen dorsally clothed with hair towards base. Fore wing with vein 2 from just beyond middle of cell; 3 from well before angle; 5 from above angle; 6 from below upper angle; 7, 8 stalked; 9, 10 stalked; 11 free. Hind wing with vein 2 from beyond middle of cell; 3 from before angle; 5 from above angle; 6, 7 from upper angle; 8 from before middle of cell.

SECT. I. (*Castulo*). Antennæ of male bipectinate.

- A. Fore wing blackish, with orange fascia on inner margin and postmedial band with black discoidal spot *plagiata*.
 B. Fore wing blackish, with the medial part of costa pink ... *doubledayi*.

1120. *Castulo plagiata*.

Castulo plagiata, Wlk. ii. 562 (1854); Kirby, Cat. Het. p. 491.
Cluaca struthias, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 715 (1886); Kirby, Cat. Het. p. 298.

♂. Head and thorax black; tips of palpi, tegulæ and abdomen orange, the last with some lateral black spots and often some black on ventral surface. Fore wing black with a slight greenish gloss; an orange fascia on inner margin from base, where it extends to median nervure, to the curved postmedial band, which expands on disk and includes a black discoidal lunule. Hind

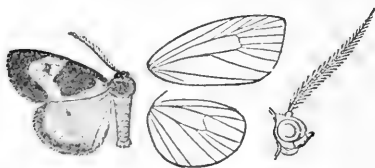


Fig. 376.—*Castulo plagiata*, ♂. 1.

wing orange, with black discoidal lunule and terminal band not reaching tornus.

Hub. N. S. WALES; TASMANIA (*J. J. Walker*), 10 ♂, type. Exp. 32 millim.

1121. *Castulo doubledayi*. (Plate XXXIV. fig. 1.)

Castulo doubledayi, Newm. Trans. Ent. Soc. (2) iv. p. 55 (1856); Kirby, Cat. Het. p. 491.
Cluaca rubricosta, Wlk. xxxi. 268 (1864); Kirby, Cat. Het. pp. 298, 491.
Castulo binotata, Wlk. Char. Lep. Het. p. 65 (1869); Kirby, Cat. Het. p. 491.

♂. Head and thorax blackish; palpi, tegulæ, pectus, base of legs, and abdomen pale pink, the last with some lateral black points and ventral fascia. Fore wing blackish, with pale pink fascia on medial half of costa and a spot at base of inner margin and point in base of cell, and sometimes a spot on inner margin at three-fourths.

Hind wing yellow, slightly tinged with pink; a slight discoidal point; a moderately broad blackish terminal band.

♀ with large greyish anal tuft.

Hab. VICTORIA, Fernshaw; TASMANIA, Hobart, 1 ♂, type *rubricosta*, (Mathew) 1 ♀. *Exp.* 30–32 millim.

SECT. II. Antennæ of male with bristles and cilia.

A. (*Lerna*). Fore wing with the apex acute; the termen straight.

1122. *Castulo nivosa*.

Lerna nivosa, Wlk. xxxiii, 805 (1865); Kirby, Cat. Het. p. 431.

Pure white; palpi and frons orange; antennæ blackish; pectus and legs orange, tarsi ringed with black; abdomen tinged with orange towards extremity. Fore wing with black fascia on costa to near apex; sub-basal, medial, and post-medial black spots below costa, the last with orange streak on costa above and beyond it to near apex; a series of six black spots on termen and cilia. Hind wing with more or less developed subterminal black spot on vein 2.



Fig. 377.—*Castulo nivosa*, ♂. †.

beyond it to near apex; a series of six black spots on termen and cilia. Hind wing with more or less developed subterminal black spot on vein 2.

Hab. N. S. WALES, Sydney (*Damel*), 2 ♀ type, (*Raynor*) 1 ♂, 1 ♀; VICTORIA, Melbourne (*Lucas*), 1 ♂, 1 ♀. *Exp.* 28–30 millim.

B. Fore wing with the termen strongly excised below apex.

a. Fore wing with triangular black patch occupying all except costal and terminal areas

b. Fore wing with two black bands.....

conographa.

discrepans.

1123. *Castulo conographa*. (Plate XXXIV. fig. 27.)

Termessa conographa, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 714 (1886); Kirby, Cat. Het. p. 298.

♂. Orange-yellow; palpi except at base, and frons black; extremities of patagia and thorax black; tibiæ and tarsi above black. Fore wing with triangular black patch occupying the whole wing except the base, the costal and terminal areas, and extending onto the cilia at tornus; the apex and two points on excised part of termen black. Hind wing with terminal black band formed by three conjoined patches, sometimes interrupted at vein 4.

Hab. QUEENSLAND, Brisbane; N. S. WALES, Richmond, 1 ♂. *Exp.* 30 millim.

1124. *Castulo discrepans*.

Termessa discrepans, Wlk. xxxi. 265 (1864); Kirby, Cat. Het. p. 298.

Termessa hamula, Feld. Reis. Nov. pl. 106. f. 5; Kirby, Cat. Het. p. 298.

♂. Palpi, frons, antennæ, and thorax black; vertex of head

tegulae, and base of patagia yellowish white; pectus and legs orange-yellow, fore and mid tibiæ and tarsi mostly fuscous; abdomen orange-yellow. Fore wing yellowish white, the basal part of costal edge streaked with black; a broad antemedial black band expanding very widely towards inner margin, its outer edge



Fig. 378.—*Castulo discrepans*, ♂. 1.

slightly angled on subcostal nervure and more strongly on median nervure; a very broad postmedial black band reaching tornus, its inner edge angled on median nervure, its outer at vein 6, then sinuous; some black on termen from apex to middle. Hind wing orange-yellow; a broad terminal black band, its inner edge strongly angled outwards on veins 3 and 1; the cilia yellowish at apex and middle.

♀. Fore wing with the ground-colour orange-yellow.

Hab. N. S. WALES (*Damel*), 1 ♂, 1 ♀ type, Fernshaw; VICTORIA. *Exp.* 30 millim.

C. (*Termessa*). Fore wing with the termen evenly curved.

a. Ground-colour of fore wing yellow or whitish.

a¹. Tegulae yellow..... *congrua*.

b¹. Tegulae black.

a². Fore wing with the antemedial band black.

a³. Hind wing without terminal black patch below apex..... *shepherdi*.

b³. Hind wing with terminal black patch below apex. *lata*.

b². Fore wing with the antemedial band yellowish with black edges..... *gratiosa*.

c². Fore wing with the antemedial band white with black edges and connected with the postmedial band by a streak..... *zonophanes*.

b. Ground-colour of fore wing blackish..... *catocalina*.

1125. *Castulo congrua*. (Plate XXXIV. fig. 8.)

Termessa congrua, Wlk. xxxi. 265 (1864); Kirby, Cat. Het. p. 297.

♀. Orange-yellow; antennæ, base of patagia, streaks on fore and mid tibiæ and tarsi, and a dorsal series of spots on abdomen black. Fore wing with black spot at base of costa; the costal edge black to the antemedial band, which is somewhat constricted in and below cell, then expanding; a postmedial black band sometimes with slight whitish marks on it, its edges irregular and somewhat constricted in discal and submedian folds, expanding towards inner margin and ending at tornus; a black patch on termen below apex with somewhat irregular inner edge. Hind wing with black postmedial band somewhat narrow from costa to vein 5, then expanding to termen.

Hab. N. S. WALES, Moreton Bay (*Damel*), 1 ♀ type, Sydney (*Raynor*), 1 ♀. *Exp.* 36 millim.

1126. *Castulo shepherdii*.

Termessa shepherdii, Newm. Trans. Ent. Soc. (2) iii. p. 285, pl. 18. f. 11 (1856); Kirby, Cat. Het. p. 297.

Head orange, palpi towards tips and antennæ black; thorax black mixed with yellow; fore and mid legs yellow and black; pectus, hind legs, and abdomen orange-yellow. Fore wing yellowish white; an irregular sub-basal blackish band not reaching inner margin; medial and postmedial broad black bands with irregular edges and irrorated with white scales, the former with its inner edge oblique from costa to submedian fold, then expanding, its



Fig. 379.—*Castulo shepherdii*, ♂. 1.

outer edge angled outwards below costa and on median nervure and expanding towards inner margin, the latter with irregularly dentate edges and more or less constricted in discal and submedian folds; some orange on costa beyond middle, on inner margin and on termen; some dentate black marks on termen from below apex to vein 3, sometimes connected with the postmedial band. Hind wing orange-yellow, with small fuscous patch on costa before apex, and more or less rounded subterminal patch between vein 4 and submedian fold.

Hab. VICTORIA, Melbourne; TASMANIA, 2 ♂, 1 ♀ type. *Exp.* 36 millim.

1127. *Castulo læta*. (Plate XXXIV. fig. 34.)

Termessa læta, Wlk. vii. 1689 (1856); Kirby, Cat. Het. p. 297.

Termessa xanthomelas, Lower, Tr. R. Soc. S. Austr. xv. p. 6 (1892).

Head and tips of patagia yellowish white; palpi, antennæ, and thorax black; fore and mid legs black and orange; pectus, hind legs, and abdomen orange. Fore wing yellowish white; a black spot at base of costa; the costal edge black to the antemedial band, which is constricted on subcostal nervure and in submedian fold; a postmedial band with irregularly dentate edges, more or less constricted in discal and submedian folds and ending at tornus; a rather irregular terminal patch below apex. Hind wing orange-yellow, with curved wedge-shaped patch on costa before apex; the termen and cilia black below apex; a rounded terminal or subterminal patch between vein 4 and submedian fold, sometimes extending along termen towards tornus.

Ab. 1. *xanthomelas*. Thorax orange; fore wing orange-yellow; the antemedial band interrupted below the cell.

Hab. N. S. WALES, Sydney (*Daniel*), 1 ♂, 2 ♀ type, (*Mathew*) 3 ♀, Zell. Coll. 1 ♂, Mt. Kosciusko; VICTORIA, Melbourne (*Lucas*), 1 ♂; S. AUSTRALIA, Waterfall, type† *xanthomelas* in Coll. Lower; W. AUSTRALIA, Albany. *Exp.* 32–36 millim.

1128. *Castulo gratiosa*. (Plate XXXIV. fig. 4.)*Eutane gratiosa*, Wlk. xxxi. 239 (1864); Kirby, Cat. Het. p. 297.*Termessa diplographa*, Turner, Trans. R. Soc. S. Austr. 1899, p. 11.

Head and thorax white; palpi, antennæ, tegulæ, patagia in front, and prothorax black; pectus, legs, and abdomen orange. Fore wing white, the inner margin and costa towards apex yellow; the basal part of costal edge and a spot at base of costa black; a broad antemedial yellowish band with waved and more or less diffused black edges expanding towards inner margin; a postmedial band often with slight brown spots on its costal half and sometimes much constricted below 3, its inner edge angled below costa and at lower angle of cell, then running obliquely to near tornus, its outer edge irregularly dentate; an irregular patch on termen below apex with dentate inner edge, sometimes connected with the postmedial band. Hind wing orange-yellow, with curved wedge-shaped black patch on costa towards apex; a patch on termen below apex; a patch on termen at vein 2, its inner edge sometimes produced up to vein 5 and its lower along termen towards tornus, sometimes connected with the costal patch.

Ab. 1. *diplographa*. Thorax and fore wing much yellower.

Hab. QUEENSLAND, Brisbane, type † *diplographa* in Coll. Turner; N. S. WALES (*Damel*), 1 ♂, 2 ♀ type, (*Mathew*) 1 ♂, 1 ♀; VICTORIA. Exp. 28 millim.

*1129. *Castulo zonophanes*. (Plate XXXIV. fig. 30.)

Termessa zonophanes, Meyr. P. Linn. Soc. N. S. W. (2) ii. p. 921 (1888); Kirby, Cat. Het. p. 298.

♂. Head and abdomen yellow; palpi and antennæ black; tegulæ and base of patagia and metathorax black, the rest of patagia and thorax whitish; legs black above. Fore wing whitish; the basal half of costa black, expanding into a spot at base; a broad antemedial black-edged whitish band, its outer edge connected with the postmedial band by a fascia on median nervure, then incurved and connected with its inner black edge; the postmedial band broad, blackish, curved from costa before apex to inner margin at tornus; a patch on termen expanding from apex to vein 4, where it is connected with the postmedial band, its inner edge somewhat dentate. Hind wing yellow; a large blackish patch with sinuous edges extending from inner margin towards tornus to vein 5 and connected with costa by a sinuous line; a black mark on termen below apex.

Hab. VICTORIA, Wimmera (*Lucas*), type † in Coll. Meyrick. Exp. 32 millim.

1130. *Castulo catocalina*. (Plate XXXIV. fig. 13.)

Clisobara catocalina, Wlk. xxxi. 269 (1864); Kirby, Cat. Het. p. 347.

Head and thorax dark brown mixed with grey; palpi at base and neck orange; pectus, legs, and abdomen orange, some fuscous on fore and mid tibiae and tarsi. Fore wing dark brown, irrorated with hairy white scales; irregularly dentate subbasal, antemedial,

postmedial, and subterminal dark lines, the postmedial line excurved and darker on discocellulars; a slight yellow streak on middle of costa and slight yellowish subterminal marks below apex. Hind wing orange, with curved wedge-shaped black subapical mark, and a comma-shaped mark formed by a large round spot beyond lower angle of cell with a tail on termen towards tornus; a slight dark line on middle of termen. Underside of fore wing orange, with large blackish patch on middle of costa, extending to submedian fold, and broad postmedial band angled below costa.

Hab. N. S. WALES, Moreton Bay (*Diggles*), 1 ♂ type, Sydney (*Raynor*), 2 ♂, 1 ♀. *Exp.* 30 millim.

Genus SCHISTOPHLEPS.

	Type.
<i>Schistophleps</i> , Hmps. Ill. Het. viii. p. 53 (1891)	<i>bipuncta</i> .
<i>Phaneropseustis</i> , Turner, Trans. R. Soc. S. Austr. 1899, p. 19	<i>albida</i> .

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male ciliated, the basal joint with tuft of scales; head, thorax, and abdomen clothed with rough hair; tibiæ with the spurs moderate; wings sparsely clothed with hair-like scales. Fore wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6 from below upper angle; 7, 8 stalked; 9, 10 stalked; 11 approximated to, connected with, or anastomosing with 12, which is connected with the costa by four or five veinlets. Hind wing with vein 2 from beyond middle of cell; 3 from well before angle; 5 from long above angle; 6, 7 stalked; 8 from beyond middle of cell.

- A. Fore wing with black points at middle and end of cell.
 - a. Fore wing with the postmedial line sinuous and erect from vein 6 to inner margin.
 - a¹. Fore wing with the antemedial and medial lines approximated below the cell, with some blackish suffusion before the former and beyond the latter..... *bipuncta*.
 - b¹. Fore wing with the antemedial and medial lines not approximated and without blackish suffusion
 - b. Fore wing with the postmedial line oblique and dentate from vein 6 to inner margin
- B. Fore wing without black points in cell..... *obducta*.
- fulvia*.

1131. *Schistophleps bipuncta*.

Schistophleps bipuncta, Hmps. Ill. Het. viii. p. 54, pl. 140. f. 23 (1891); id. *Moths Ind.* ii. p. 125; Kirby, *Cat. Het.* p. 366.

Head, thorax, and abdomen white; antennæ and thorax tinged with ochreous; wings semihyaline. Fore wing with yellow-brown points at base of costa and cell; an antemedial line acutely dentate on subcostal nervure, bent outwards and with a fuscous patch on its inner side below the cell, angled inwards on vein 1; a black point at middle of cell; a medial yellow-brown line angled outwards in cell, bent inwards and almost touching the antemedial line below the cell and with some fuscous suffusion beyond



Fig. 380.—*Schistophleps bipuncta*, ♂. 1. (From *Moths Ind.* vol. ii.)

it; a black discoidal point; a yellow-brown postmedial line, oblique from costa to vein 5, then curved; a curved series of patches from costa before apex to termen below middle; a terminal series of spots.

Hab. ASSAM, Naga Hills; BELGAUM (*Watson*), 1 ♀; NILGIRIS (*Hampson*), 3 ♀, type; CEYLON (*Green, Pole*), 2 ♂, 1 ♀; BURMA, Rangoon (*Scott*), 1 ♀. *Exp.* 20-22 millim.

1132. *Schistophleps albida*. (Plate XXXIV. fig. 9.)

Nudaria albida, Wlk. xxi. 273 (1864); Kirby, Cat. Het. p. 360.

White; fore tibiae and tarsi banded with fulvous. Fore wing with curved antemedial series of three small pale fulvous spots; black points at middle of cell and on discocellulars; a medial series of four fulvous spots bent inwards to costa; a postmedial line oblique from costa to vein 5, slightly excurved between veins 3 and 1; some indistinct subterminal spots incurved to costa; a terminal series of points.

Hab. QUEENSLAND, Rockhampton, 1 ♀; N. S. WALES, Moreton Bay (*Diggles*), 2 ♂, 1 ♀ type. *Exp.* 20 millim.

1133. *Schistophleps obducta*. (Plate XXXIV. fig. 10.)

Nudaria obducta, Lucas, P. Linn. Soc. N. S. W. (2) viii. p. 135 (1893).

♀. Head and thorax grey tinged with brown; abdomen whitish. Fore wing semihyaline brownish; the basal area strongly irrorated with fuscous to the antemedial line, which is very oblique from costa to median nervure, where it is strongly angled, then angled inwards on vein 1; a medial line angled outwards on subcostal and median nervures and inwards on vein 1, the area between it and the postmedial line strongly suffused with fuscous, a slight black point on it at middle of cell, and a prominent point on a pale discoidal patch; the postmedial line minutely dentate, strongly bent outwards below costa, angled at vein 6, then oblique; an indistinct curved dentate subterminal line; short dark streaks on the extremities of the veins; the termen fuscous. Hind wing semihyaline whitish.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♀. *Exp.* 22 millim.

1134. *Schistophleps fulvia*, n. sp. (Plate XXXIV. fig. 11.)

♀. Head and thorax fulvous yellow; legs and abdomen whitish. Fore wing semihyaline whitish, the diffused fulvous markings covering most of wing; the basal area fulvous; obscure diffused antemedial and medial fulvous lines angled in cell; a discoidal fulvous point; a sinuous postmedial line diffused inwardly; a subterminal series of conjoined fulvous patches extending to termen below apex and middle, and leaving a pale sinuous line between them and the postmedial diffused line. Hind wing hyaline white.

Hab. SUMATRA; BORNEO, Sandakan (*Oreagh*), 1 ♀, Sarawak (*Wallace*), 1 ♀; JAVA, Mt. Arjuno, 3000 ft. (*Doherty*), 1 ♀ type. *Exp.* 16-20 millim.

Genus **CAULOCERA**, nov.Type, *C. crassicornis*.

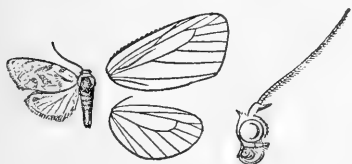
Proboscis fully developed; palpi porrect, short, and clothed with long hair; antennæ of male ciliated, the basal joint long, with a tuft of hair in front; head, thorax, and abdomen clothed with rough hair; tibiæ with the spurs moderate. Fore wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 stalked; 8, 9 absent in male; 8 present in female; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 stalked; 8 from before middle of cell.

SECT. I. Fore wing of male with a fold in base of cell.

1135. *Caulocera crassicornis*.

Chamaïta crassicornis, Wlk. Journ. Linn. Soc., Zool. vi. p. 122 (1862); Kirby, Cat. Het. p. 365.

♂. Yellowish white; wings almost diaphanous. Fore wing with pale fulvous patch at base; an oblique antemedial band from costa to median nervure; a medial band oblique from costa to lower angle of cell, then erect and attenuate below vein 2; a spot on costa towards apex; a short oblique fascia from vein 5 to middle of termen and another from vein 3 to tornus. Hind wing with pale fulvous patch at apex.

Fig. 381.—*Caulocera crassicornis*, ♂. $\frac{3}{2}$.

♀. Fore wing with the markings rather browner; hind wing with some brownish suffusion at base of inner area and a patch at tornus, no apical patch.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂; PULO LAUT (*Doherty*), 1 ♂; BALI (*Doherty*), 1 ♀. *Exp.* 16 millim. Type † in Mus. Oxon.

SECT. II. Fore wing with a tuft of long hair on inner margin near base. Hind wing with a fold on inner area on upperside.

1136. *Caulocera xantholopha*, n. sp.

♂. Yellowish white. Fore wing with fulvous patch on costa before middle; a slight spot in middle of cell; the costal edge yellowish on terminal half; a slight fulvous tinge from costa beyond middle to below end of cell; a curved pale fulvous band from costa before apex to middle of termen, and a rounded patch at tornus; the tuft on inner margin fulvous. Hind wing white.

Fig. 382.—*Caulocera xantholopha*, ♂. $\frac{3}{2}$.

Hab. PULO LAUT (*Doherty*), 1 ♂ type. *Exp.* 12 millim.

Genus **CHAMAITA.**

Type.

Chamaita, Wlk. Journ. Linn. Soc., Zool. vi. p. 121 (1862). *trichopteroides*.
Homopsyche, Butl. A. M. N. H. (5) x. p. 226 (1882)..... *trichopteroides*.

Proboscis fully developed; palpi short, porrect, clothed with long hair; head, thorax, and abdomen clothed with rough hair; antennæ ciliated, with the basal joint extremely long and clothed with long hair; tibiæ with the spurs moderate; wings sparsely clothed with hair. Fore wing with the costa strongly arched at base and fringed with hair, which is very long in male; vein 2 from middle of cell; 3 from long before angle; 5 from far above angle; 6 from below upper angle, sinuous; 7, 8 stalked; 9 absent; 11 free; male with a strong fold in cell containing flocculent hair, the subcostal and median nervures approximated. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 stalked; 8 from before middle of cell.

SECT. I. Fore wing with vein 10 absent in both sexes.

1137. *Chamaita trichopteroides*.

Chamaita trichopteroides, Wlk. J. Linn. Soc., Zool. vi. p. 122 (1862); Kirby, Cat. Het. p. 365.
Homopsyche nudarioides, Butl. A. M. N. H. (5) x. p. 226 (1882); Kirby, Cat. Het. p. 365.
Chamaita neuropteroides, Hmps. Moths Ind. ii. p. 125 (1894).

White; wings diaphanous. Fore wing with slight brown marks at base; an antemedial series of small brown spots, the spot on



Fig. 383.—*Chamaita trichopteroides*, ♂. 1.

median nervure displaced outwards; a medial series of brown marks oblique from costa to lower angle of cell, then almost forming a wavy line; a curved subterminal series of points and a terminal series.

Hab. ASSAM, Margharita (*Doherty*), 1 ♀, type † *neuropteroides* in Coll. Elwes; BORNEO, Sarawak (*Wallace*), type † ♀ in Mus. Oxon.; N. GUINEA (*Wallace*), 1 ♂; NEW BRITAIN, 1 ♂, type *nudarioides*. *Eap.* 20 millim.

SECT. II. Fore wing with vein 10 absent in male, from cell in female.

1138. *Chamaita nympha*.

Homopsyche nympha, Moore, Lep. Ceyl. iii. p. 536, pl. 211. f. 11 (1887); Hmps. Moths Ind. ii. p. 126; Kirby, Cat. Het. p. 365.

Yellowish white. Fore wing with pale fulvous subbasal line; an antemedial line angled outwards below costa and inwards in cell; a spot in middle of cell; the postmedial line angled inwards below costa, then bent outwards to a spot on discocellulars, then oblique, waved and angled inwards on vein 2; an indistinct irregularly waved subterminal line; a terminal series of points. Hind wing whiter.



Fig. 334.

Chamaita nympha, ♂. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

Hab. CEYLON (*Green, Pole, Yerbury*), 6 ♂, 12 ♀, type; CELEBES, Makassar (*Wallace*), 1 ♀. *Exp.* 18–20 millim.

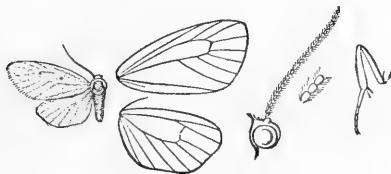
Genus PAUROPHLEPS, nov.

Type, *P. minuta*.

Proboscis and palpi absent; antennæ moniliform, clothed all over with long hair; hind tibiæ with the medial spurs absent. Fore wing with vein 2 from middle of cell; 3 from long before angle; 5 from above angle; 6 from below upper angle; 8, 9, 10 absent; 11 oblique. Hind wing with vein 2 from middle of cell; 3 from before angle; 5 from long above angle; 6, 7 coincident; 8 from near end of cell. Wings sparsely clothed with hair-like scales.

1139. *Paurophleps minuta*, n. sp.

♂. Orange fulvous; antennæ black; fore and mid tibiæ with

Fig. 385.—*Paurophleps minuta*, ♂. $\frac{1}{2}$.

black patches above. Fore wing with black points in middle of cell and on discocellulars.

Hab. CAPE COLONY, Transkei (*Miss F. Barrett*), 1 ♂ type. *Exp.* 14 millim.

Genus PALÆOPSIS.

Type.

Palæopsis, Hmps. Ill. Het. B. M. ix. p. 86 (1893)..... *diaphanella*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ ciliated, the basal joint with tuft of scales; head, thorax, and abdomen clothed with rough hair; tibiæ with the spurs moderate; wings sparsely clothed with hair-like scales. Fore wing with the cell very long; vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 from upper angle; 8, 9 absent; 10 from close to angle; 11 free. Hind wing with the cell very long; vein 2 from middle of cell; 3 from long before angle; 5 from far above angle; 6, 7 stalked; 8 from towards end of cell.

1140. *Palæopsis diaphanella*.

Palæopsis diaphanella, Hmps. Ill. Het. B. M. ix. p. 87, pl. 158. f. 8 (1893)
id. Moths Ind. ii. p. 124.

Head and thorax ochreous white; legs brownish above; abdomen white. Fore wing with ochreous patch on basal costal area; an antemedial line yellow and maculate towards costa, brownish below



Fig. 386.

Palæopsis diaphanella, ♂. †.
(From Moths Ind. vol. ii.)

the cell and angled inwards on vein 1; the medial area strongly irrorated with purplish fuscous; a black spot in cell; a sinuous ochreous postmedial line, oblique towards costa; a black discoidal spot; three subterminal brown patches conjoined by smaller spots above and below the middle patch. Hind wing

hyaline white, the termen slightly tinged with brown.

Hab. CEYLON (*Green, Pole*), 5 ♂, 5 ♀, type. *Exp.* 14 millim.

Genus **HEMIPSILIA**, nov.

Type, *H. coa-vestis*.

Proboscis well developed; palpi porrect, not reaching as far as frons; antennæ of male ciliated; tibiæ with the spurs short; wings thinly scaled. Fore wing with the cell very long; vein 2 from middle; 3 from long before angle; 5 from well above angle; 6 shortly stalked with 7, 8; 9 absent; 10 from cell; 11 curved, becoming coincident with 10. Hind wing with the cell very long; vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 stalked; 8 from middle of cell.

*1141. *Hemipsilia coa-vestis*.

Nudaria coa-vestis, Hmps. Moths Ind. ii. p. 124 (1894).

♂. Head, thorax, abdomen, and fore wing pale yellow-brown.



Fig. 387.

Hemipsilia coa-vestis, ♂. †.

Fore wing with almost hyaline antemedial band; a hyaline annulus in cell extending to costa and with a slight tail from its lower edge; an almost hyaline postmedial line bent outwards to origin of vein 5. Hind wing yellowish hyaline.

Hab. SIKHIM (*Elwes*), 1 ♂ type† in Coll. Elwes. *Exp.* 20 millim.

Genus **AMALODETA**.

Amalodeta, Meyr. Trans. Ent. Soc. 1889, p. 462..... Type.
electraula.

Proboscis fully developed; palpi porrect, not reaching beyond the frons

antennæ of male minutely serrate and ciliated; tibiæ with the spurs short; head, thorax, and abdomen clothed with rough hair. Fore wing short and rather broad, the costa arched, the apex rounded; vein 2 from middle of cell, curved at base; 3 from well before angle; 5 from above angle; 6, 7, 8 on a long stalk; 9 absent; 10, 11 free, oblique. Hind wing with vein 2 from middle of cell; 3 from well before angle; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell. Wings sparsely clothed with hair-like scales.

*1142. *Amalodeta electraula*.

Amalodeta electraula, Meyr. Trans. Ent. Soc. 1889, p. 463; Kirby, Cat. Het. p. 307.

♂. Head and thorax ochreous white; abdomen white. Fore

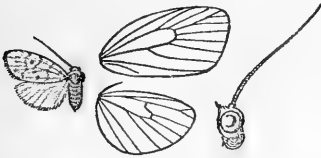


Fig. 388.—*Amalodeta electraula*, ♂. 1.

wing ochreous white; a sub-basal rufous point; an oblique antemedial series of points; a medial series oblique from costa to vein 2 where it is angled; a darker discoidal spot; the post-medial line slightly curved from costa to vein 2, where it is slightly angled inwards, then excurved; a curved series of points from vein 7 to termen a vein 3, with a point beyond it on vein 5; a series of points on termen and cilia. Hind wing nearly pure white.

Hab. N. GUINEA, Port Moresby (*Kowald*), type † ♂ in Coll. Meyrick. *Exp.* 20 millim.

Genus **NUDARIA**.

	Type.
<i>Nudaria</i> , Haw. Lep. Brit. p. 156 (1803)	<i>mundana</i> .
<i>Derrhis</i> , Willgrn. Skand. Het. ii. p. 259 (1835).....	<i>mundana</i> .
<i>Psilopepla</i> , Turner, Trans. R. Soc. S. Austr. 1899, p. 13.....	<i>mollis</i> .

Proboscis fully developed; palpi porrect, not reaching beyond the frons, which is tufted with hair; antennæ ciliated, the basal joint rather long and tufted with hair in front; head, thorax, and abdomen clothed with rough hair; tibiæ with the spurs moderate; wings sparsely clothed with hair-like scales. Fore wing with the cell long; vein 2 from middle; 3 from long before angle; 5 from middle of discocellulars; 6, 7, 8 stalked; 9 absent; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from well above angle; 6, 7 on a long stalk; 8 from middle of cell.

SECT. I. (*Nudaria*). Fore wing short and broad, the apex rounded.

1143. *Nudaria mundana*.

Tortrix mundana, Linn. Faun. Suec. ii. p. 349 (1761); Esp. Schmett. iii. p. 45, pl. 6. ff. 1-2 & pl. 93. ff. 1-7; Godt. Léop. Fr. iv. p. 397, pl. 40. f. 7; Steph. Ill. Brit. Ent., Haust. ii. p. 83; Staud. Cat. p. 52; Kirby, Cat. Het. p. 360.

Pallium transparens, Retz. Gen. Spec. Ins. p. 52 (1783).

Bombyx nuda, Hübn. Eur. Schmett. ii. ff. 63, 64 (1827).

Bombyx hemicrobia, Hübn. Eur. Schmett. ii. f. 65 (1827).

Fig. 389.—*Nudaria mundana*, ♂. 1.

Head, thorax, and abdomen white with a flesh-coloured tinge; antennæ and legs tinged with fuscous above. Fore wing white tinged with flesh-colour; an obscure fuscous spot at base and streak on base of costa; a sinuous antemedial line excurved from median nervure to submedian fold; a spot in middle of cell; a postmedial waved line angled beyond the cell; a pale irregular diffused subterminal fuscous line. Hind wing hyaline whitish.

Hab. NORTH, CENTRAL, and SOUTH EUROPE, Zell. and Frey Colls.; ARMENIA. *Exp.* 20–24 millim.

Larva. Meyrick, Brit. Lep. p. 31; Barrett, Lep. Brit. ii. p. 199, pl. 66. f. 2.

Pale grey-brown; dorsal area pale yellow, the dorsal line fuscous; the subdorsal line blackish brown; a blackish dorsal spot on 7th somite; hairs dark grey-brown; head dark brown. Food-plant, Lichens; 9–5.

SECT. II. (*Psilopepla*). Fore wing narrow and elongate, the apex more produced.

A. Fore wing without fulvous-yellow patches.

a. Fore wing without dark wedge-shaped patch above tornus.

a¹. Fore wing with postmedial line.

a². Fore wing with the postmedial line oblique from median nervure to inner margin

fasciata.

b². Fore wing with the postmedial line bent outwards to inner margin

margaritacea.

b¹. Fore wing without postmedial line

suffusa.

b. Fore wing with dark wedge-shaped patch above tornus

fumidisca.

B. Fore wing with fulvous-yellow postmedial patch below costa.

a. Fore wing with three fulvous-yellow patches on terminal area conjoined at base

discipuncta.

b. Fore wing with oblique dark patch above tornus and ill-defined markings towards apex

mollis.

1144. *Nudaria fasciata*. (Plate XXXIV. fig. 23.)

Nudaria fasciata, Moore, P. Z. S. 1878, p. 36; Hmps. Moths Ind. ii. p. 123; Kirby, Cat. Het. p. 361.

Nudaria promelana, Hmps. Moths Ind. iv. p. 502 (1896).

Head, thorax, and abdomen ochreous; frontal tuft tinged with brown; palpi, fore and mid legs brown. Fore wing ochreous suffused with dark brown, leaving an ochreous fascia on basal third of inner margin; a black point on an obscure ochreous patch at middle of cell just above median nervure; a patch with dentate edges on termen below apex, the oblique dentate postmedial band arising from its lower extremity; some slight dentate subterminal marks. Hind wing ochreous, with obscure diffused fuscous medial band.

Ab. 1. *promelena*. Fore wing with the yellow markings reduced, the postmedial line angled back to costa and not connected with the subapical patch; hind wing tinged with fuscous.—Khásis.

Ab. 2. Yellowish white; frons, palpi, and legs with hardly a trace of brown. Fore wing with hardly any brown suffusion; indistinct dentate dark oblique antemedial and postmedial lines; the point in cell with some fuscous suffusion beyond it on costal area; an irregularly dentate subterminal line bent inwards to the postmedial line towards costa.

Hab. TIBET, Yatung, 10,500 feet (*Hobson*), 1 ♀; SIKHIM (*Lidderdale*, *Atkinson*), 3 ♂, 2 ♀; ASSAM, Khásis, 1 ♂, type *promelena*. Exp. 24–26 millim.

1145. *Nudaria margaritacea*.

Nudaria margaritacea, Wlk. xxxi. 275 (1864), ♀; Hmps. Moths Ind. ii. p. 123; Kirby, Cat. Het. p. 361.

Nudaria margaritaria, Wlk. xxxi. 275 (1864), ♂.

♂. Yellowish white; fore tibiae and tarsi banded with brown.



Fig. 390.—*Nudaria margaritacea*,

♂. 1.

(From Moths Ind. vol. ii.)

Fore wing with the costa brown towards base; a slight subbasal line; an antemedial brown line obsolescent except towards costa, slightly angled outwards on median nervure and inwards in submedian fold; a medial brown line angled outwards on median nervure and bent outwards to inner

margin, a brownish mark on costa towards apex, and sometimes traces of an irregular subterminal line; a brown spot at middle of cilia. Hind wing with indistinct waved postmedial line from costa to vein 2.

♀. Fore wing with the lines much more prominent, the antemedial line more angled on median nervure; the postmedial line acutely dentate at lower angle of cell, then in form of a Σ ; the subterminal line well developed, strongly angled outwards at middle and bent outwards to tornus.

Ab. 1. Ground-colour much whiter; fore wing with the lines often strongly developed in male.—Yatung.

Hab. TIBET, Yatung (*Hobson*), 4 ♂, 3 ♀; SIKHIM (*Atkinson*, *Lidderdale*), 4 ♂, 5 ♀, type. Exp. 22–26 millim.

1146. *Nudaria suffusa*. (Plate XXXIV. fig. 12.)

Nudaria suffusa, Hmps. Moths Ind. ii. p. 123 (1894).

Head yellowish white; thorax pale fuscous; pectus and legs yellowish; abdomen whitish, dorsally tinged with pale fuscous. Fore wing pale fuscous grey; a yellowish-white patch from middle of costa to median nervure, dilated at costa and rounded at lower

extremity; a small postmedial spot on inner margin sometimes present; a patch on costa before apex; a small spot on termen below apex and larger spots above and below middle. Hind wing pale grey; the costal area hyaline white to end of cell; cilia yellowish white.

Hab. SIKHIM, 7000 feet (*Pilcher*), 1 ♀; ASSAM, Khásis, 1 ♂. *Exp.* 18-20 millim.

Type ♀ in Coll. Elwes abnormal, with the upper angle of cell enlarged and veins 6, 7, 8 from cell.

1147. *Nudaria fumidisca*. (Plate XXXIV. fig. 26.)

Nudaria fumidisca, Hmps. Moths Ind. iv. p. 502 (1896).

Yellowish white. Fore wing with some fuscous suffusion at base; waved ante- and postmedial dark lines, angled outwards on median nervure, the area between them suffused with fuscous except towards costa; a short oblique subterminal pale fuscous streak from below apex, conjoined at base to a triangular medial spot; a darker wedge-shaped spot extending to tornus. Hind wing with the inner half suffused with pale fuscous.

Hab. SIKHIM, 7000 feet (*Pilcher*), 1 ♀; ASSAM, Khásis, 2 ♂. *Exp.* 18-20 millim.

1148. *Nudaria discipuncta*. (Plate XXXIV. fig. 25.)

Nudaria discipuncta, Hmps. J. Bomb. N. H. Soc. xi. p. 440 (1897).

White; head and thorax marked with yellow; fore tibiæ and tarsi ochreous. Fore wing with fulvous-yellow spots at base and on costa near base and before middle; two fuscous dentate lines, the first angled on median nervure, the second arising from the yellow patch on costa, angled below costa, then oblique and dentate inwards to the first line below the cell; a prominent black spot in middle of cell, with some purplish-fuscous suffusion below it; a fulvous-yellow somewhat stellate patch from costa to median nervure, connected with inner margin by a line which expands into a spot on the margin; oblique yellow fasciæ from costa before apex and middle of termen conjoined at bases, and with a rather wedge-shaped patch below them with some purplish fuscous at base; a dentate terminal line; cilia blackish at tornus.

Hab. BHUTÁN (*Dudgeon*), 1 ♀; ASSAM, Khásis, 1 ♂ type; PULO LAUT (*Doherty*), 1 ♂. *Exp.* 18 millim.

In the Pulo Laut specimen vein 6 of fore wing is given off beyond 8.

1149. *Nudaria mollis*. (Plate XXXIV. fig. 24.)

Nudaria mollis, Lucas, P. Linn. Soc. N. S. W. (2) viii. p. 136 (1894).

Head and thorax whitish tinged with fulvous; abdomen whitish. Fore wing whitish; the costa fuscous towards base, with a fulvous patch below it and dark points on median nervure and vein 1; an

antemedial fulvous triangular patch on costa, with the oblique dark antemedial line arising from its apex; a prominent black spot in cell; an irregular fulvous patch from costa to lower angle of cell, with a black point just beyond it, the dark postmedial line arising from its extremity, oblique and sinuous to submedian fold, then bent outwards; an oblique triangular fulvous patch on apical part of costa met by some irregular markings on medial part of termen; an oblique wedge-shaped dark mark above tornus; some fulvous points on termen. Hind wing yellowish white, with slight discoidal point.

Fore wing with vein 6 given off beyond 8.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♀, type ♂ in Coll. *Turner*. *Exp.* 16 millim.

Genus *GYMNOCHROMA*, nov.

Type, *G. fulvipicta*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons and clothed with rough hair; head, thorax, and abdomen clothed with rough hair; antennæ ciliated, the basal joint long and fringed with rough hair in front; tibiæ with the spurs moderate. Fore wing rather narrow; vein 2 from middle of cell; 3 from long before angle; 5 from middle of discocellulars; 6, 7 stalked; 8 absent; 9 from angle; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from long before angle; 5 from long above angle; 6, 7 strongly stalked; 8 from middle of cell. Wings sparsely clothed with hair-like scales.

1150. *Gymnochroma fulvipicta*.

Nudaria fulvipicta, Hmps. *Moths Ind.* iv. p. 501 (1896).

♂. Head, thorax, and abdomen white, thorax and abdomen above towards extremity tinged with purplish fuscous. Fore wing white; some fuscous suffusion on basal area, and three indistinct lines, the



Fig. 391.

Gymnochroma fulvipicta, ♂. $\frac{3}{2}$.

second with a fulvous point on median nervure, the third with fulvous points at costa, median nervure and vein 1, and angled on median nervure; the terminal area suffused with fuscous; a dark-edged postmedial fulvous patch from costa to lower angle of cell; a discoidal black point; fulvous streaks towards apex, on vein 4, and on terminal part

of inner margin; a black point at apex, and a black spot on middle of termen with white patches above and below it. Hind wing pale fuscous, whitish towards base; the cilia whitish at middle and near tornus.

Hab. ASSAM, Khâsis, 1 ♂ type. *Exp.* 16 millim.

Genus **CHLOROGENIA.**

Chlorogenia, Meyr. Trans. Ent. Soc. 1889, p. 461..... Type.
cholerata.

Proboscis fully developed; palpi porrect, extending beyond the frons; antennæ of female ciliated; tibiæ with the spurs moderate. Fore wing short and broad; vein 2 from beyond middle of cell, curved at base; 3 from well before angle; 5 absent; 6 from below upper angle; 7, 8 stalked; 9, 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell.

*1151. *Chlorogenia cholerata*.

Chlorogenia cholerata, Meyr. Trans. Ent. Soc. 1889, p. 461; Kirby, Cat. Het. p. 307.

♀. Head and thorax yellowish white; fore tibiæ ringed with olive-brown; abdomen white, the large anal tuft rufous. Fore wing ochreous white; the basal half of costal edge brown; a sub-basal pale olive-brown line angled just below cell; an antemedial line, oblique towards costa, interrupted in cell and retracted below submedian fold; a medial line slightly excurved from middle of cell

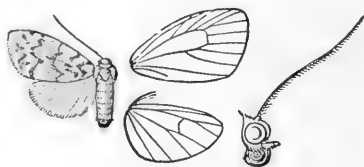


Fig. 392.—*Chlorogenia cholerata*, ♀. ¾.

to above vein 1, on which it is angled inwards; a postmedial oblique line bent outwards between veins 6 and 4, angled inwards on vein 2, then excurved again; an oblique irregularly dentate subterminal line, ending on termen above tornus, expanding into patches at veins 6 and 3. Hind wing paler yellowish white.

Hab. N. GUINEA, Port Moresby (*Kowald*), type† ♀ in Coll. Meyrick. *Exp.* 18 millim.

Genus **HETERALLACTIS.**

Heterallactis, Meyr. Proc. Linn. Soc. N. S. W. (2) i. p. 703
 (1886) Type.
euchrysa.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head, the 1st joint with rough hair in front; antennæ of male ciliated; tibiæ with the spurs long. Fore wing rather narrow; vein 2 from angle of cell; 3, 4 coincident; 5 absent; 6 from below upper angle; 7, 8 stalked; 9, 10, 11 free. Hind wing with vein 2 from well before angle of cell; 3, 4 coincident; 5 from above angle; 6, 7 stalked; 8 from middle of cell, sinuous; the costa strongly arched; a very slight patch of androconia at base of vein 8.

1152. *Heterallactis euchrysa*.

Heterallactis euchrysa, Meyr. Proc. Linn. Soc. N. S. W. (2) i. p. 703 (1886); Kirby, Cat. Het. p. 334.

Head and tegulae golden yellow; palpi and antennae brownish; thorax purplish brown; hind legs ochreous; abdomen fuscous, the anal tuft ochreous. Fore wing golden yellow, the base purple; an oblique purple postmedial band, its inner edge somewhat sinuous and slightly angled on median nervure, its outer edge diffused.

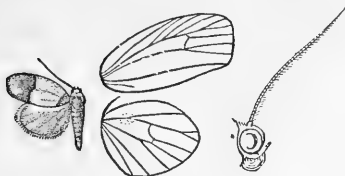


Fig. 393.—*Heterallactis euchrysa*, ♂. 1. Hind wing fuscous, the costal area whitish, with a few rufous androconia on junction of vein 8 with cell.

Hab. QUEENSLAND, Brisbane, (Turner) 1 ♀. *Exp.* 20 millim. Type ♂ in Coll. Meyrick.

Genus **DIDUGA**.

	Type.
<i>Diduga</i> , Moore, Lep. Ceyl. iii. p. 535 (1887).....	<i>flavicostata</i> .
<i>Androstigma</i> , Hmps. Ill. Het. ix. p. 82 (1893)	<i>albicosta</i> .

Proboscis fully developed; palpi slender, upturned, and reaching vertex of head; tibiae with the spurs long. Fore wing narrow, the costa arched, the apex rounded; vein 2 from middle of cell, curved at base; 3 from well before angle; 5 from above angle; 6 from below upper angle; 7, 8 stalked; 9, 10, 11 free, or 11 anastomosing with 12. Hind wing with vein 2 from towards angle of cell; 3, 4 coincident; 5 from near middle of discocellulars; 6, 7 on a long stalk; 8 from beyond middle of cell.

SECT. I. Antennae bipectinate, with very long fine branches, the apical part serrate.

1153. *Diduga annulata*, n. sp.

♂. Pale grey-brown. Fore wing with the costal edge black towards base; a point below base of cell; a sub-basal striga from costa; the antemedial line excurved from below costa to submedian fold; traces of a sinuous medial line; a point on subcostal nervure just beyond middle and an annulus in lower part of cell; a larger annulus at lower angle of cell, with a striga on costa above it; the postmedial line dentate, excurved from below costa to vein 3, then oblique and angled inwards in submedian fold; traces of a curved irregular subterminal line. Hind wing yellowish white.



Fig. 394.—*Diduga annulata*, ♂. 2

Ha. SAMBAWA (Doherty), 1 ♂ type. *Exp.* 14 millim.

SECT. II. (*Androstigma*). Antennæ of male with much shorter branches, the apical part serrate.

A. Hind wing with large rounded patch of androconia at tornus.

1154. *Diduga albicosta*.

Diduga albicosta, Hmps. Ill. Het. viii. p. 53, pl. 140. f. 17; id. Ill. Het. ix. p. 82, pl. 158. f. 25; id. Moths Ind. ii. p. 96; Kirby, Cat. Het. p. 362.

♂. Head, tegulæ, and mesothorax white; palpi, frons, and branches of antennæ fuscous; metathorax and abdomen fuscous; legs yellowish. Fore wing fuscous; a white costal fascia narrowing from base to apex, its lower edge strongly crenulate; ante- and postmedial fuscous points on costa; a crenulate terminal white band expanding at vein 3. Hind wing pale fuscous, the patch of androconia dark fuscous edged with white.



Fig. 395.—*Diduga albicosta*, ♂. ¾.

♀. Fore wing with the costal half of the terminal band

reduced to a point above vein 6; hind wing darker fuscous.

Hab. NILGIRIS (*Hampson*), 1 ♀ type; CEYLON, Pundaloya (*Green*), 1 ♂. *Exp.* 14 millim.

Subsp. 1. Head, front part of thorax, the costal fascia, and terminal band of fore wing strongly tinged with orange-yellow.

Hab. BALI (*Doherty*), 2 ♂.

B. Hind wing with the inner area clothed with rough hair above.

1155. *Diduga pectinifer*, n. sp.

♂. Head, tegulæ, patagia, and mesothorax orange-yellow; palpi and frons blackish; metathorax and abdomen fuscous; pectus, legs, and ventral surface of abdomen greyish brown. Fore wing dark fuscous; a crenulate orange costal fascia with whitish lower edge; ante- and postmedial dark points on costa; a crenulate terminal band with whitish inner edge,



Fig. 396.—*Diduga pectinifer*, ♂. ¾.

the costal fascia and terminal band irrorated with a few dark scales. Hind wing reddish brown, the cilia white at tips.

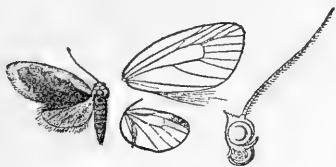
Hab. PULO LAUT (*Doherty*), 1 ♂ type. *Exp.* 12 millim.

SECT. III. (*Diduga*). Antennæ of male ciliated.

- A. Fore wing of male with a tuft of hair on inner margin, vein 11 anastomosing with 12; hind wing with costal fold on underside on basal half of costa, and fringe of hair on upperside on terminal half; a tuft of long hair on upperside below base of cell; the claspers long and tufted with hair.

1156. *Diduga trichophora*, n. sp.

♂. Head, tegulæ, patagia, and mesothorax orange; palpi and frons blackish; metathorax and abdomen fuscous; legs yellow, tinged with fuscous above. Fore wing dark fuscous; an orange costal fascia with strongly crenulate lower edge, irrorated with a few dark scales; an antemedial dark striga from costa; a crenulate terminal band with whitish inner edge. Hind wing reddish brown.

Fig. 397.—*Diduga trichophora*, ♂. $\frac{1}{2}$.

Hab. PULO LAUT (*Doherty*), 1 ♂; BALI (*Doherty*), 1 ♂ type. *Exp.* 16 millim.

- B. Fore wing of male with vein 11 free; hind wing without costal fold or tufts of hair.

a. Fore wing with crenulate yellow costal fascia.

a¹. Fore wing uniform fuscous, except the costal fascia and terminal band *flavicostata*.

b¹. Fore wing becoming dull rufous towards inner margin. *rufidisca*.

b. Fore wing with yellow postmedial spot only on costa..... *fumipennis*.

1157. *Diduga flavicostata*.

Pitane flavicostata, Snell. Tijds. v. Ent. xxii. p. 92, pl. x. f. 8 (1879); Kirby, Cat. Het. p. 325.

Diduga costata, Moore, Lep. Ceyl. iii. p. 535, pl. 211. ff. 8, 9 (1887); Hmps. Moths Ind. ii. p. 96; Kirby, Cat. Het. p. 362.

Diduga fulvicosta, Hmps. Ill. Het. viii. p. 52, pl. 140. f. 16 (1891); Kirby, Cat. Het. p. 362.

Head, tegulæ, base of patagia, and mesothorax orange-yellow; palpi, frons, metathorax, pectus, legs, and abdomen fuscous.



Fig. 398.

Diduga flavicostata, ♂. $\frac{1}{4}$.
(From Moths Ind. vol. ii.)

Fore wing fuscous; an orange-yellow costal fascia with strongly crenulate lower edge, the costal edge black towards base, and ante- and postmedial points on costa; a crenulate whitish to orange terminal band expanding at vein 3; the costal fascia often irrorated with black scales. Hind wing fuscous.

Ab. 1. *fulvicosta*. Fore wing with the terminal band obsolescent above vein 3.

Hab. NILGIRIS (*Hampson*), 1 ♀, type *fulvicosta*; CEYLON (*Green, Pole*), 3 ♂, 5 ♀, type *costata*; BURMA, Toungoo (*De Nicéville*), 1 ♀ PULO LAUT (*Doherty*), 1 ♂; JAVA, 1 ♂; CELEBES. *Exp.* 16–18 millim.

1158. *Diduga rufidisca*. (Plate XXXIII. fig. 17.)

Diduga rufidisca, Hmps. Journ. Bomb. Nat. Hist. Soc. 1897, p. 439.

♀. Head, tegulae, base of patagia, and mesothorax brownish yellow; palpi and frons, metathorax and abdomen blackish; legs and ventral surface of abdomen paler. Fore wing with broad brownish-yellow costal fascia irrorated with a few dark scales, its lower edge whitish and strongly crenulate, defined below by fuscous suffusion shading off into dull rufous towards inner margin; an obscure discoidal spot; an irregular maculate whitish terminal band; the spots below apex and above tornus large. Hind wing fuscous.

Hab. ASSAM, KHÁISIS, 1 ♀ type. *Exp.* 12 millim.

1159. *Diduga fumipennis*.

Peidia fumipennis, Hmps. Ill. Het. viii. p. 52, pl. 140. f. 7 (1891); id. Moths Ind. ii. p. 96; Kirby, Cat. Het. p. 364.

♂. Fuscous brown; head and tegulae yellow; legs and anal tuft yellowish. Fore wing darker fuscous towards apex; a postmedial ill-defined yellow spot on costa; the cilia yellow above tornus. Hind wing rather paler.

♀. Head and tegulae whitish; fore wing with the yellow mark on costa reduced.

Hab. NILGIRI PLATEAU, 7000 feet (*Hampson*), 1 ♂, 1 ♀ type. *Exp.* 16–18 millim.

Genus *CONOSIA*, nov.

Type, *C. aspersa*.

Proboscis fully developed; palpi porrect, reaching as far as frons; antennae of male with bristles and cilia; tibiae with the spurs moderate; abdomen clothed with rough hair. Fore wing with the costa nearly straight, the apex rectangular, the inner margin with slight tuft at tornus; vein 2 from middle of cell, 3, 4 on a long stalk; 5 absent; 6, 7 and 8, 9 on long stalks; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from middle of cell; 3, 4 on a long stalk; 5 absent; 6, 7 stalked; 8 from middle of cell.

1160. *Conosia aspersa*.

Lithosia aspersa, Wlk. Journ. Linn. Soc., Zool. vi. p. 104 (1862); Kirby, Cat. Het. p. 339.

Lithosia xylinoides, Wlk. Journ. Linn. Soc., Zool. vi. p. 107 (1862); Swinh. Cat. Het. Mus. Oxon. p. 123, pl. 4. f. 17; Kirby, Cat. Het. p. 320.

Head and thorax grey-brown; abdomen grey, with some fuscous



Fig. 399.—*Conosia aspersa*, ♂. 1.

before the anal tuft, which is yellowish. Fore wing grey irrorated

with brown; a medial blackish band strongly angled below costa or often almost entirely obsolete except a spot on costa; traces of a curved subterminal line. Hind wing fuscous, pale towards base; the cilia pale.

Ab. 1. Abdomen darker; fore wing mostly suffused with fuscous.

Hab. TENASSERIM, Mergui; BORNEO, Sarawak (*Wallace*), 1 ♂, 1 ♀ type, Baram (*Pryer*), 2 ♀, S.E. Borneo (*Doherty*), 1 ♂. *Exp.*, ♂ 26, ♀ 32–36 millim. Type † *xylinoides* in Mus. Oxon.

Genus EUGOA.

<i>Eugoa</i> , Wlk. xii. 768 (1857).....	Type. <i>æqualis</i> .
<i>Hectogama</i> , Meyr. Trans. Ent. Soc. 1889, p. 465	<i>dissozona</i> .

Proboscis fully developed; palpi upturned; antennæ of male usually serrate and fasciculate; tibiæ with the spurs moderate. Fore wing rather narrow: vein 2 from middle of cell; 3 from well before angle; 4, 5 stalked; 6, 7 and 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from towards end of cell; 5 absent; 6, 7 stalked; 8 from beyond middle of cell.

SECT. I. Hind wing with veins 3, 4 coincident; the inner area with fold and fringes of hair; fore wing with the costa strongly arched at base; palpi reaching above vertex of head; antennæ with bristles and cilia.

1161. *Eugoa humerana*.

Tospitis humerana, Wlk. xxviii. p. 433 (1863); Kirby, Cat. Het. p. 365.

♂. Head and thorax dull brownish; the antennæ, vertex of head, and tegulæ yellowish white; abdomen clothed with silky white scales except at base. Fore wing pale yellowish brown irrorated

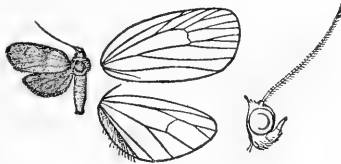


Fig. 400.—*Eugoa humerana*, ♂. 1.

with reddish brown; an obscure darker patch at middle of costa and a very ill-defined medial band. Hind wing dark fuscous brown.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ type. *Exp.* 22 millim.

SECT. II. Hind wing with veins 3, 4 stalked, rarely from cell; palpi short.

A. Fore wing with obliquely placed black spots in lower end of cell and on discocellulars.

a. Fore wing with two antemedial spots *grisea*.

b. Fore wing with antemedial line.

a¹. Fore wing with the antemedial line reaching inner margin.

a². Fore wing with terminal series of black points *tanaiata*.

b². Fore wing without terminal series of black points ... *bipunctata*.

b¹. Fore wing with the antemedial line not reaching below submedian fold *africana*.

B. Fore wing without obliquely placed spots at end of cell.

a. Fore wing with subterminal line.

a¹. Fore wing with ante- and postmedial lines *æqualis*.

b. Fore wing without ante- and postmedial lines *tincoides*.

1. Fore wing without subterminal line.

a¹. Fore wing pale yellow, with ante- and postmedial dark bands *dissozona*.

b. Fore wing brownish.

a². Fore wing with white antemedial band with black point on it *bipuncta*.

b. Fore wing without white antemedial band.

a³. Vertex of head yellow *crassa*.

b. Vertex of head brownish.

a⁴. Fore wing with triangular fuscous patch on costa above the discoidal point *turbida*.

b. Fore wing without dark patch on costa.

a⁵. Fore wing with prominent subterminal spots *vagigutta*.

b⁵. Fore wing without subterminal spots *obscura*.

1162. *Eugoa grisea*.

Eugoa grisea, Butl. A. M. N. H. (4) xx. p. 399 (1877); id. Ill. Het. B. M. ii. p. 8, pl. 23. f. 1; Kirby, Cat. Het. p. 379.

♀. Grey; palpi yellowish, black at sides. Fore wing with small blackish spots at base on costa and below the cell; antemedial spots on costa and in submedian fold; two obliquely placed spots in lower end of cell and on discocellulars; a diffused postmedial line from costa to vein 5, and a patch from vein 3 to inner margin angled inwards in submedian fold; a very indistinct, irregularly sinuous subterminal line, with more prominent spots on it below costa and above tornus; cilia yellowish. Hind wing fuscous brown, the cilia yellowish.

Hab. JAPAN, Yokohama (Jonas), 1 ♀ type. *Exp.* 30 millim.

*1163. *Eugoa tæniata*.

Æmene tæniata, Fixsen, Rom. Mém. iii. p. 327, pl. 15. f. 6 (1887); Kirby, Cat. Het. p. 367.

♀. Pale grey; mesothorax with two black points. Fore wing with subbasal black point on costa, the antemedial line expanding into a spot at costa and into a quadrate patch at middle; a spot on middle of costa; obliquely placed black points in lower end of cell and on discocellulars placed on a dark mark conjoined to the sinuous postmedial line; a spot on costa towards apex; the subterminal line obsolescent towards costa and inner margin and angled inwards in discal fold; a terminal series of points.

Hab. AMUR; COREA. *Exp.* 24 millim. This species is unknown to me, the left-hand side of the figure agrees with the description, not the right.

1164. *Eugoa bipunctata*.

Lycene bipunctata, Wlk. Journ. Linn. Soc., Zool. vi. p. 115 (1862); Swinh. Cat. Het. Mus. Oxon. p. 101; Hmps. Moths Ind. ii. p. 99; Kirby, Cat. Het. p. 295.

Lithosia trifasciata, Snell, in Veth's Midden-Sumatra, Lep. p. 33 (1880); Kirby, Cat. Het. p. 325.

Padenia trifasciata, Moore, Lep. Ceyl. iii. p. 534, pl. 211. f. 14 (1887); Kirby, Cat. Het. p. 295.

Padenia basipuncta, Hampson, Ill. Het. B. M. viii. p. 49, pl. 139. f. 8 (1891); Kirby, Cat. Het. p. 296.

Paidia bipuncta, Heyl. C.R. Soc. Ent. Belge, xxxv. p. 414 (1891), ♀; Kirby, Cat. Het. p. 916.

Head and thorax yellowish irrorated with fuscous, and with patches of black on vertex of head, tegulæ, and patagia; palpi black at sides; abdomen yellowish, with dorsal and lateral series of obscure fuscous spots. Fore wing grey, strongly irrorated with fuscous; a black spot below base of cell and blackish patch on base of costa; an oblique antemedial line expanding towards costa; two obliquely placed black points in lower end of cell and on discocellulars; an oblique slightly sinuous postmedial line angled in submedian fold,

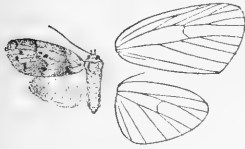


Fig. 401.

Eugoa bipunctata, ♂. $\frac{1}{2}$.
(From Moths Ind. vol. ii.)

then oblique to inner margin, some diffused fuscous on its outer side; a minutely dentate subterminal line strongly angled inwards above veins 5 and 2. Hind wing pale yellow, tinged with fuscous towards apex.

Ab. 1. *basipuncta*. Fore wing less irrorated with fuscous; the antemedial line more sinuous and diffused, the postmedial incurved below costa and with more dark suffusion beyond it; hind wing with more fuscous suffusion.—Nilgiris, Ceylon, Sandakan.

Ab. 2. *trifasciata*, Moore. Fore wing whitish with hardly any fuscous suffusion; the antemedial line expanding at costa and in submedian fold; the postmedial line expanding on costal and inner areas.—Ceylon.

Hab. ASSAM; NILGIRIS (*Hampson*), 2 ♀, type *basipuncta*; CEYLON, Wattagama (*Green*), 1 ♀, type *trifasciata*, Puttalam (*Pole*), 1 ♂; BURMA; SUMATRA, type † *trifasciata* in Coll. Snellen; BORNEO, Sandakan (*Pryer*), 2 ♀; SARAWAK (*Wallace*), 1 ♂, 1 ♀; JAVA, Preanger; AMBOINA. *Exp.* 22-28 millim. Type † in Mus. Oxon.

1165. *Eugoa africana*, n. sp. (Plate XXXIV. fig. 2.)

♂. Head and thorax ochreous tinged with brown; palpi black at base; vertex of head with V-shaped black mark; patagia and metathorax with black spots; fore coxæ black in front; abdomen orange-yellow. Fore wing ochreous tinged with brown; the costal edge black towards base; a black spot below base of cell and a short subbasal bar from costa; an oblique antemedial maculate line from costa to submedian fold; two obliquely placed points in lower end of cell and on discocellulars; short oblique postmedial bars from costa and inner margin, the latter with two points above it; three obliquely placed points from costa near apex; two medial subterminal points and one near tornus; a series of points on the cilia. Hind wing orange-yellow.

Hab. CAPE COLONY, Grahamstown (*Miss F. Barrett*), 1 ♂ type. *Exp.* 22 millim.

1166. *Eugoa æqualis*. (Plate XXXIV. fig. 3.)

Eugoa æqualis, Wlk. xii. 768 (1857); Swinh. Cat. Het. Mus. Oxon. p. 100; Kirby, Cat. Het. p. 379.

Lyclene trifascia, Wlk. Journ. Linn. Soc., Zool. vi. p. 111 (1862); Kirby, Cat. Het. p. 295.

Lyclene imposita, Wlk. Journ. Linn. Soc., Zool. vi. p. 112 (1862); Kirby, Cat. Het. p. 295.

Head and thorax white; sides of palpi and frons blackish; vertex of head with two black points; tegulæ, patagia, meso- and meta-thorax with blackish patches; abdomen yellowish, with dorsal and lateral diffused fuscous spots. Fore wing white; small blackish triangular patches at base of costa and below the cell; an antemedial fuscous-brown band expanding into a triangular patch on costa and into a large triangular patch from cell to inner margin; a postmedial sinuous line strongly incurved in submedian fold, with a quadrate patch on its outer side on costal area, and a larger patch from vein 4 to inner margin with its outer edge indented; a terminal band expanding into teeth above veins 2 and 5 and with whitish mark on it above vein 5. Hind wing pale yellow.

Ab. 1. *trifascia*. Head and tegulæ with hardly a trace of fuscous spots. Fore wing with dark streak on base of costa; the antemedial band hardly expanding on inner area; the postmedial band expanding into triangular patches on costal and inner areas; the terminal band hardly dentate; hind wing with the apical area tinged with fuscous.—Sandakan, Sarawak.

Hab. BORNEO, Sandakan (*Pryer*), 1 ♀, Sarawak (*Wallace*), 4 ♂, 1 ♀, type and type *imposita*. *Exp.* 28 millim. Type † *trifascia* in Mus. Oxon.

*1167. *Eugoa tineoides*. (Plate XXXIV. fig. 7.)

Lyclene tineoides, Wlk. Journ. Linn. Soc., Zool. vi. p. 115 (1862); Swinh. Cat. Het. Mus. Oxon. p. 102; Kirby, Cat. Het. p. 310.

♀. Head and thorax ochreous largely mixed with dark brown; abdomen brownish ochreous. Fore wing ochreous, very strongly irrorated and suffused with dark brown; a short slight antemedial black streak on median nervure; a black discoidal point; an obscure diffused irregularly dentate subterminal line arising from apex and strongly angled inwards in discal fold; cilia ochreous and fuscous. Hind wing pale fuscous brown, rather deeper towards apex; cilia pale.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♀ type in Mus. Oxon. *Exp.* 20 millim.

*1168. *Eugoa dissozona*. (Plate XXXIV. fig. 29.)

Hectogama dissozona, Meyr. Trans. Ent. Soc. 1889, p. 465; Kirby, Cat. Het. p. 370.

♂. Head, tegulæ, and base of patagia yellowish white; palpi

marked with fuscous at sides; thorax and rest of patagia purplish fuscous; abdomen yellowish white. Fore wing yellowish white; slight fuscous marks at base; a broad obliquely incurved antemedial purplish-fuscous band; a similar postmedial band bent outwards to costa near apex and widening below the cell; a fuscous patch on termen above tornus. Hind wing yellowish white.

Hab. NEW GUINEA, 1 ♂ type † in Coll. Meyrick. *Exp.* 24 millim.

*1169. *Eugoa bipuncta*. (Plate XXXIV. fig. 6.)

Paidia bipuncta, Heyl. C.R. Soc. Ent. Belge, xxxv. p. 414 (1891); Kirby, Cat. Het. p. 916.

♀. Head and tegulae yellowish white; palpi at sides and antennae fuscous; patagia and thorax purplish fuscous; legs fuscous and yellowish; abdomen fuscous, the base and anal tuft yellowish white. Fore wing with the basal area and outer half suffused with purplish fuscous, leaving an antemedial dirty white band with a black point on it just above median nervure; a triangular whitish patch on costa before apex; some whitish irroration towards termen. Hind wing dull ochreous, with diffused fuscous on apical area.

Hab. SUMATRA; JAVA, Preanger, type † ♀ in Coll. Heylaerts. *Exp.* 18 millim.

Described as a ♂; the ♀ said to be taken *in copula* with it is a ♀ of *Eugoa bipunctata*, Wlk.

1170. *Eugoa crassa*. (Plate XXXIV. fig. 28.)

Lyclene crassa, Wlk. Journ. Linn. Soc., Zool. vi. p. 114 (1892); Swinh. Cat. Het. Mus. Oxon. p. 102; Kirby, Cat. Het. p. 310.

Tospitis indeclaratana, Wlk. xxviii. 427 (1863); Kirby, Cat. Het. p. 365.

Tospitis inconspicua, Wlk. xxviii. 430 (1863); Kirby, Cat. Het. p. 365.

♂. Head and tegulae pale yellow; palpi and lower part of frons blackish; thorax brown; abdomen yellowish. Fore wing yellowish, thickly irrorated and suffused with reddish brown; a rather darker patch at base of costa; a minute black point at lower angle of cell; faint traces of an oblique band from costa near apex. Hind wing pale yellow.

♀. Hind wing pale brown, the cilia pale yellow.

Ab. 1. *inconspicua*. Frons blackish; fore wing with the patch on base of costa more prominent; the oblique postmedial band more prominent.

Hab. BORNEO, Sarawak (Wallace), 1 ♂, 3 ♀, types *indeclaratana* and *inconspicua*. *Exp.* 20–22 millim. Type † in Mus. Oxon.

1171. *Eugoa turbida*. (Plate XXXIV. fig. 33.)

Lyclene turbida, Wlk. Journ. Linn. Soc., Zool. vi. p. 114 (1862); Swinh. Cat. Het. Mus. Oxon. p. 102; Kirby, Cat. Het. p. 310.

Lyclene strigicosta, Wlk. Journ. Linn. Soc., Zool. vi. p. 114 (1862); Swinh. Cat. Het. Mus. Oxon. p. 102; Kirby, Cat. Het. p. 310.

Head, thorax, and abdomen pale brown; palpi blackish at sides; fore and mid legs fuscous above. Fore wing pale yellowish brown, thickly irrorated with fuscous; a very indistinct waved antemedial line, with more distinct striga on costa; a black discoidal point with brownish mark beyond it and oblique striga from costa above it with a small triangular fuscous patch on its outer edge; an oblique wedge-shaped spot from costa just before apex; a striga just before middle of termen; a series of spots on termen and cilia. Hind wing pale fuscous brown.

Hab. BORNEO, Sarawak (*Wallace*), 3 ♂. *Exp.* 16 millim. Type† and type† *strigicosta* in Mus. Oxon.

*1172. *Eugoa vagigutta*. (Plate XXXIV. fig. 32.)

Lyclene vagigutta, Wlk. Journ. Linn. Soc., Zool. vi. p. 116 (1862); Swinh. Cat. Het. Mus. Oxon. p. 102; Kirby, Cat. Het. p. 367.

♂. Brownish ochreous; palpi, sides of frons, and fore legs above black; abdomen tinged with fuscous. Fore wing with the costal edge black towards base; subbasal black spots on costa and in cell; an antemedial series of four spots on the veins, the spot on median nervure larger and further from the base; a large spot in end of cell almost conjoined to the punctiform postmedial line which is bent outwards round end of cell; two subterminal spots below costa and spots nearer the termen at middle and above tornus. Hind wing somewhat yellower, with an indistinct discoidal spot and some fuscous on termen.

Hab. BORNEO, Sarawak (*Wallace*), 1 ♂ type† in Mus. Oxon. *Exp.* 18 millim.

1173. *Eugoa obscura*, n. sp. (Plate XXXIV. fig. 16.)

♀. Head, thorax, and fore wing pale brownish grey, thickly irrorated with brown; a discoidal black point; abdomen and hind wing pale fuscous.

Hab. S.E. BORNEO (*Doherty*), 2 ♀, type. *Exp.* 14 millim.

Genus **CYCLOSIELLA**, nov.

Type, *C. dulcicula*.

Proboscis fully developed; palpi upturned, short; antennæ of male ciliated; tibiæ with the spurs moderate. Fore wing short and broad, the costa arched, the apex rounded; vein 2 from middle of cell, curved at base; 3 from before angle; 4, 5 stalked; 6, 7 and 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from close to angle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

1174. *Cyclosiella dulcicula*.

Hemonia dulcicula, Swinh. Trans. Ent. Soc. 1890, p. 183; Hmps. Moths Ind. ii. p. 101; id. Ill. Het. ix. pl. 158. f. 15; Kirby, Cat. Het. p. 364.

Head, tegulae, and patagia orange; extremity of patagia and thorax purplish fuscous; legs and abdomen pale yellow. Fore wing grey-brown; an orange fascia on costa from base of inner margin, widening on apical area and narrowing to a point at tornus, defined below by brilliant purple; an obscure purple patch on middle of inner margin. Hind wing

Fig. 402.—*Cyclosiella dulcicula*, ♂. $\frac{3}{2}$.

pale fuscous, the costa and termen pale yellow.

Hab. ASSAM, 1 ♀; S. INDIA, 1 ♂; CEYLON (*Green*), 1 ♀; BURMA, Rangoon, 2 ♀ type; BORNEO. *Exp.* 12–18 millim.

Genus TRISCHALIS.

Type.

Trischalis, Hmps. Moths Ind. ii. p. 101 (1894) *absconditana*.

Proboscis fully developed; palpi porrect, not reaching as far as frons; antennae of male minutely ciliated; tibiae with the spurs long. Fore wing short and broad, the costa strongly arched, the apex rounded; vein 2 from middle of cell; 3 from before angle; 4, 5 stalked; 6, 7 and 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from near angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

A. Fore wing with whorl-shaped mark on inner area..... *subaurana*.

B. Fore wing without whorl-shaped mark on inner area. ... *absconditana*.

1175. *Trischalis subaurana*. (Plate XXXIV. fig. 15.)

Tospitis subaurana, Wlk. xlviii. 432 (1863); Kirby, Cat. Het. p. 365.

Pallene metalligera, Butl. A. M. N. H. (5) x. p. 226 (1882); Kirby, Cat. Het. p. 364.

♀. Golden yellow. Fore wing with pale purplish-fuscous line from middle of cell recurved to above inner margin near base, then more prominent, running up to vein 2 and round back again to vein 1 before middle; a pale purplish silvery line often diffused from below costa beyond middle, curved to middle of termen and tornus; some silvery scales on apical part of costa. Hind wing paler.

Hab. ANDAMANS, 1 ♀; LABUAN (*Everett*), 1 ♀; BORNEO, Sarawak (*Wallace*), 1 ♀ type; NEW BRITAIN, 1 ♀, type *metalligera*. *Exp.* 22 millim.

1176. *Trischalis absconditana*.

Tospitis absconditana, Wlk. xxviii. 432 (1863); Kirby, Cat. Het. p. 364.

Hemonia flava, Hmps. Ill. Het. B. M. ix. p. 83, pl. 158. f. 5 (1893); id. Moths Ind. ii. p. 101.

♂. Pale straw-yellow; thorax with a purplish fuscous patch. Fore wing with a pale purplish fuscous shade from base of inner margin curving upwards through the cell and downwards to termen below middle. Hind wing paler.

Fig. 403.—*Trischalis flava*, ♂. 1.
(From Moths Ind. vol. ii.)

Hab. CEYLON (*Green*), 1 ♂, type *flava*; BORNEO, Sarawak (*Wallace*), 1 ♀ type. *Exp.* 14 millim.

Subsp. 1. Fore wing with the curved fascia narrower and ending before termen.

Hab. ASSAM, Naga Hills, Coll. Elwes. *Exp.* 20 millim.

Genus STIGMATOPHORA.

Type.

Stigmatophora, Staud. Stett. ent. Zeit. xlii. p. 399 (1881) *micans*.

Proboscis well developed; palpi porrect, extending just beyond frons; antennæ of male ciliated; tibiæ with the spurs rather long. Fore wing with vein 2 from middle of cell, oblique; 3 from before angle; 5 from above angle; 6, 7 and 8, 9 stalked; 10, 11 from cell. Hind wing with vein 2 from middle of cell; 3 from near angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

- | | |
|---|-----------------------|
| A. Fore wing white with black streaks | <i>strigivenata</i> . |
| B. Fore wing pale yellow with purple-black streaks | <i>palmata</i> . |
| C. Fore wing yellow with crimson streaks | <i>roseivena</i> . |
| D. Fore wing yellow suffused with crimson and with fuscous lines. | |
| a ¹ . Fore wing with fuscous streaks on basal and post-medial areas..... | <i>rhodophila</i> . |
| b ¹ . Fore wing with slight fuscous streaks on the veins beyond the cell | <i>acerba</i> . |
| c ¹ . Fore wing without fuscous streaks | <i>torrens</i> . |
| E. Fore wing yellow, with series of black points | <i>flava</i> . |
| F. Fore wing white, with series of black points; the costa and termen yellow | <i>micans</i> . |

*1177. *Stigmatophora strigivenata*. (Plate XXXIV. fig. 31.)

Eugoa strigivenata, Hmps. Moths Ind. ii. p. 99 (1894).

♂. Head and thorax white; tegulæ, patagia, meso- and meta-thorax with black spots; abdomen pale yellow. Fore wing white; two black points at base; the basal half with black streaks on costa, veins, in interspaces, and on inner margin ending in small forks or clubs; a spot in cell towards extremity, with short streak to middle of discocellulars; the veins beyond the cell and the submedian fold with black streaks to near termen, ending in small clubs. Hind wing pale yellow.

Hab. BURMA, E. Pegu (*Doherty*), type † ♂ in Coll. Elwes. *Exp.* 26 millim.

1178. *Stigmatophora palmata*.

Lyclene palmata, Moore, P. Z. S. 1878, p. 31, pl. 3. f. 5; Hmps. Moths Ind. ii. p. 110; Kirby, Cat. Het. p. 305.

♀. Pale yellow; mesothorax with a pair of black spots; fore tibiæ banded with black. Fore wing with the costa and termen rather deeper yellow; a blue-black spot at base of costa and a sub-basal spot on median nervure; an antemedial series of three spots, the one above inner margin bar-shaped; a medial series of three strigæ, the one above inner margin sometimes excurved; two purplish streaks in end of cell and a series in the interspaces of terminal area not nearly reaching termen, their outer edge curved. Hind wing with three subterminal short streaks below apex followed by four or five spots.

Ab. 1. Fore wing with the black markings very much reduced, the extremities of the three streaks towards apex separated as distinct spots.—Murree.

Hab. N.W. HIMALAYAS, Murree (*Harford*), 1 ♀, Dharmśāla (*Hocking*), 2 ♀, type; ASSAM. *Exp.* 34 millim.

*1179. *Stigmatophora roseivena*. (Plate XXXIV. fig. 17.)

Eugoa roseivena, Hmps. Moths Ind. ii. p. 99 (1894).

♀. Head and thorax yellow and crimson; abdomen pale crimson. Fore wing yellow, with crimson streaks on the veins, in cell, and submedian fold. Hind wing bright crimson, with the cilia yellow.

Hab. BURMA, Momeit (*Doherty*), type † ♀ in Coll. Elwes. *Exp.* 26 millim.

1180. *Stigmatophora rhodophila*.

Barsine rhodophila, Wlk. xxxi. 254 (1864); Butl. Ill. Het. iii. p. 8, pl. 42. f. 12; Kirby, Cat. Het. p. 311.

Yellow suffused with crimson. Fore wing with black points at base of costa and on median nervure; five short fuscous streaks on basal area before the antemedial line which is angled below costa, then oblique and not reaching inner margin; a medial line slightly angled outwards in cell and submedian fold and inwards on vein 1, then bent outwards to inner margin, some fuscous beyond it in end of cell; a postmedial series of fuscous streaks in the interspaces, excurved below costa and incurved below vein 4; the costal and terminal areas more strongly tinged with crimson.

Hab. AMUR; JAPAN, Yokohama (*Jonas*), 1 ♂, 1 ♀, Tokio (*Fenton*), 2 ♀; N. CHINA, Shanghai (*Fortune*), 3 ♀ type, (*J. J. Walker*) 1 ♀, Nankow Pass, 1 ♀. *Exp.* 28 millim.

*1181. *Stigmatophora acerba*. (Plate XXXIV. fig. 5.)

Mitochrista acerba, Leech, Trans. Ent. Soc. 1899, p. 196.

♂. Head and thorax orange suffused with crimson; abdomen orange. Fore wing orange, strongly suffused with crimson; the costal edge black towards base; an antemedial series of five indistinct fuscous points slightly angled on median nervure, then oblique; a curved series of three medial fuscous points on vein 2, in submedian fold, and on vein 1; slight fuscous streaks on the veins beyond the cell, with a series of points in the interspaces beyond them curved inwards below costa, angled inwards above vein 4 and incurved below vein 4. Hind wing orange slightly tinged with crimson.

Hab. W. CHINA, Moupin, 1 ♂ type † in Coll. Leech. *Exp.* 36 millim.

1182. *Stigmatophora torrens*. (Plate XXXIV. fig. 18.)

Mitochrista torrens, Butl. A. M. N. H. (5) iv. p. 353 (1879); Kirby, Cat. Het. p. 311.

♂. Orange; fore and mid tibiae with slight fuscous patches at extremity. Fore wing with the costal area and termen strongly

tinged with red; subbasal black points on costa and median nervure; an antemedial fuscous line arising at middle of cell, oblique, angled inwards in submedian fold and below vein 1 retracted to base. Hind wing with the termen tinged with red.

Hab. JAPAN, Yokohama (*Pryer*), 1 ♂ type. *Exp.* 28 millim.

1183. *Stigmatophora flava*.

Setina flava, Brem. Motsch. Ét. Ent. i. p. 63 (1852); id. Schmett. N. China's, p. 15; id. Léop. Ost-Sib. p. 97, pl. 8. f. 6; Staud. Cat. p. 52; Kirby, Cat. Het. p. 358.

Setina sinensis, Wlk. ii. 520 (1854).

Setina ochracea, Led. Verh. zool.-bot. Ges. Wien, v. p. 105, pl. 1. f. 1 (1855).

Yellow; head, tegulæ, and patagia rather deeper in colour; palpi and fore legs suffused with purplish fuscous. Fore wing with the costal area orange-yellow; the costal edge black towards base; a subbasal black point; an oblique series of three antemedial points; a postmedial series of six points slightly incurved below vein 4; a subterminal point below apex and sometimes another above vein 4, with two between them further from termen. Underside of fore wing with the disk more or less completely suffused with fuscous.

Hab. ALTAI, type† *ochracea* in Coll. Staudinger; AMUR, 1 ♂; CHINA, Shanghai (*Fortune*), 4 ♂, type *sinensis*, Chusan, 1 ♂, Hong-kong, 1 ♂ (*J. J. Walker*); PENANG, 1 ♀. *Exp.* 28–32 millim.

Subsp. 1. *leacrita*, Swinh. A. M. N. H. (6) xiv. p. 438 (1894).

Fore wing uniform orange-yellow; the black points more prominent, the postmedial series with an extra point incurved below costa; the subterminal series consisting of six points; underside without black on disk.

Hab. JAPAN, Yesso (*Pryer*), 1 ♂, Tokio (*Fenton*), 2 ♀, Sahata (*Leech*), 2 ♂, Yokohama (*Jonas*), 3 ♂, 2 ♀, type; CHINA, Shanghai, 1 ♀, Haining, 1 ♂ (*J. J. Walker*). *Exp.* 30–34 millim.

1184. *Stigmatophora micans*.

Setina micans, Brem. Motsch. Ét. Ent. i. p. 63 (1852); id. Schmett. N. China's, p. 15; Kirby, Cat. Het. p. 359.

Setina albosericea, Moore, A. M. N. H. (4) xx. p. 87 (1877).

White; head, tegulæ, and abdomen suffused with orange-yellow; fore and mid tibiæ and tarsi banded with black. Fore wing with the costa and termen orange-yellow, the costal edge black towards base; a subbasal black spot; an oblique antemedial series of three spots; a postmedial series of spots, bent outwards below costa and angled at veins 6 and 4, then retracted; a subterminal series of spots, those above veins 4 and 5 further from

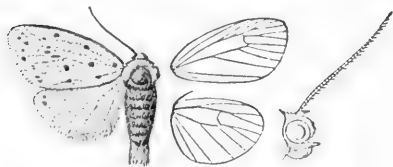


Fig. 404.—*Stigmatophora micans*, ♂. 1.

terminal series of spots, those above veins 4 and 5 further from

termen. Hind wing suffused with yellow, the termen orange-yellow; two subterminal black points below apex, and sometimes two spots below vein 2. Underside with the disk of fore wing suffused with black.

Ab. 1. *albosericea*. Fore wing with the spots smaller, the yellow margins reduced; hind wing nearly white.

Hab. COREA (*W. Perry*), 1 ♀; CHINA, Pekin, 1 ♀, Shanghai (*Pryer*), 1 ♀ type *albosericea*. *Exp.* 36–48 millim.

Genus **HYPEUGOA**.

Type.

Hypeugoa, Leech, Trans. Ent. Soc. 1899, p. 189 *flavogrisea*.

Proboscis aborted and minute; palpi porrect, short and not reaching beyond frons; antennæ of male with bristles and cilia; tibiæ with the spurs rather long; abdomen smoothly scaled. Fore wing rather narrow, the costa arched near base, then nearly straight, the termen obliquely rounded; vein 2 from middle of cell, oblique; 3 from well before angle; 4, 5 from angle; 6, 7 stalked; 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from before angle; 4, 5 from angle; 6, 7 shortly stalked; 8 from middle of cell.

*1185. *Hypeugoa flavogrisea*.

Hypeugoa flavogrisea, Leech, Trans. Ent. Soc. 1899, p. 190.

♂. Head and thorax grey mixed with dark scales; antennæ brownish. Fore wing grey strongly irrorated with fuscous; a medial darker band narrowing towards inner margin, its inner edge

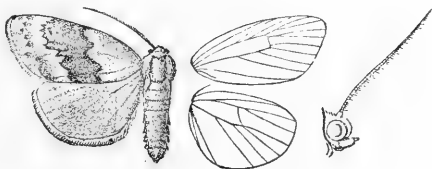


Fig. 405.—*Hypeugoa flavogrisea*, ♂. ½.

angled outwards below costa and cell, its outer minutely dentate, bent outwards between veins 8 and 4, then oblique; a diffused irregularly dentate subterminal line. Abdomen and hind wing yellow-buff, the latter irrorated with fuscous scales.

Hab. W. CHINA, Ta-chien-lu, 1 ♂ type † in Coll. Leech. *Exp.* 44 millim.

Genus **CHRYSOZANA**, nov.

Type, *C. cræsus*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male with bristles and cilia, the shaft dilated especially in female; tibiæ with the spurs moderate; the claspers of male very long and clothed with rough hair. Fore wing short and broad; vein 2 from well beyond middle of cell, curved; 3 from before angle, curved; 5, 6 from a point at middle of discocellulars; 8 absent; 9, 10 from cell; 11 anastomosing with 12. Hind wing

with vein 2 from towards end of cell; 3, 4 coincident; 5 absent; 6, 7 stalked; 8 from middle of cell; the outer half of wing in male clothed with rough scales on underside.

1186. *Chrysozana cræsus*, n. sp.

♂. Head black; antennæ yellowish at base and with a white band beyond middle; vertex of head and thorax golden yellow;



Fig. 406.—*Chrysozana cræsus*, ♂. 1.

pectus, legs, and abdomen orange, the last with the dorsum crimson to near extremity. Fore wing metallic golden; the costal area black suffused with gold from base, widening to termen where it shades off to above tornus; the inner margin slightly tinged with fuscous.

Hind wing crimson, with terminal black band expanding widely on apical area and before tornus.

♀. Abdomen with the terminal segments black.

Hab. BOLIVIA, Songo (*Garlepp*), 1 ♂ type, ♀ in Coll. Staudinger. *Exp.* 20 millim.

Genus *BÆNASA*.

Bænasa, Wlk. xxxi. 266 (1864) Type. *nigrorosea*.

Proboscis fully developed; palpi obliquely upturned, reaching well in front of frons; antennæ of male with bristles and cilia; tibiæ with the spurs moderate. Fore wing rather short and broad, the costa arched, the apex rectangular; vein 2 from middle of cell, oblique; 3 from well before angle; 5 from well above angle; 6 from middle of cell; 7 from below upper angle; 8, 9 stalked; 10 free; 11 anastomosing with 12. Hind wing of male reduced to a small triangular lobe under base of fore wing, containing the rudiments of all the veins arising from cell, except the inner area, which is very large and turned right over so that the underside becomes the functional upperside, the inner margin the functional costa; vein 1*a* near this costa, vein 1*b* near the functional inner margin, which has developed long cilia; an oblique ridge running from near base of functional costa to near functional tornus.

1187. *Bænasa nigrorosea*.

Bænasa nigrorosea, Wlk. xxxi. 266 (1864); Kirby, Cat. Het. p. 351.

♂. Palpi, frons, and antennæ black; vertex of head and tegulæ orange; thorax black-brown; abdomen crimson. Fore wing



Fig. 407.—*Bænasa nigrorosea*, ♂. 1.

black-brown, with a slight oblique line of pale crimson scales from submedian fold to middle of inner margin; a pale crimson discoidal point; a subterminal deep crimson band from vein 7 to the margin. Hind wing deep crimson;

the cilia fuscous; the rudiment of costal half of wing grey-brown.

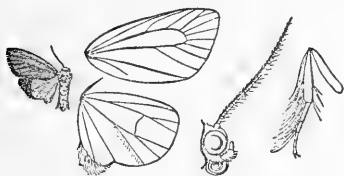
Hab. HAITI (*Tweedie*), 1 ♂ type. *Exp.* 26 millim.

Genus **METALLOSIA**, nov.Type, *M. chrysotis*.

Proboscis fully developed; palpi upturned, not nearly reaching vertex of head, the 2nd joint fringed with scales in front; antennæ of male with cilia and bristles, the shaft thickened with scales above; tibiæ with the spurs moderate, hind tibiæ at extremity and 1st two joints of tarsus fringed with long hair on upperside; abdomen with lateral tufts of long hair towards extremity. Fore wing short and moderately broad; vein 2 from middle of cell, oblique; 3 from well before angle; 5 from above angle; 6 from well below upper angle; 7 from cell; 8, 9 stalked; 10, 11 free, 11 curved and approximated to 12. Hind wing with vein 2 from towards angle of cell; 3, 4 from angle; 5 absent; 6, 7 stalked; 8 from middle of cell; the inner margin fringed with thick hair and scales towards tornus, which is lobed; vein 2 fringed with scales on upper-side towards extremity.

1188. *Metallosia chrysotis*, n. sp.

♂. Head, tegulæ, and patagia bronze-green; thorax golden bronze; fore legs suffused with purple-blue; abdomen crimson, with the lateral tufts orange, the anal tuft brown. Fore wing brown, irrorated with golden scales except between veins 5 and 6. Hind wing deep crimson, with black-brown apical patch extending to vein 2; the fringe on vein 2 and the

Fig. 408.—*Metallosia chrysotis*, ♂. 1.

cilia towards tornus orange.

Hab. BRAZIL, Espiritu Santo (Bates), 1 ♂ type, Rio Janeiro. *Exp.* 16 millim.

Genus **TROPACME**.

Type.

Tropacme, Hmps. Moths Ind. ii. p. 101 (1894) *cupreimargo*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male pectinated; tibiæ with the spurs long. Fore wing rather short and broad; the costa arched, the apex curved over below; vein 2 from middle of cell, oblique; 3 from long before angle; 4, 5 from angle; 6 from below upper angle; 7 from below angle; 8, 9 stalked; 10, 11 free. Hind wing with vein 2 from middle of cell; 3 from before angle; 4, 5 stalked; 6, 7 stalked; 8 from middle of cell.

1189. *Tropacme cupreimargo*.

Tropacme cupreimargo, Hmps. Moths Ind. ii. p. 101 (1894).

Ochreous yellow; abdomen suffused with fuscous above except towards base; fore legs fuscous above. Fore wing with some purplish-grey suffusion on costa to the antemedial band, which is indistinct towards costa, acutely angled in cell, then oblique and

defined by a pale line on outer side; a purplish-black wedge-shaped streak from termen above middle to discocellulars; an obliquely curved purplish-grey band defined on inner side by a white line from below it to middle of inner margin, the area beyond it suffused with grey; the termen tinged with cupreous. Hind wing yellow tinged with fuscous, the termen at middle and cilia yellow.



Fig. 409.

Tropacme cupreimargo, ♀. $\frac{3}{2}$.
(From Moths Ind. vol. ii.)

Hab. ASSAM, Khâsis, 1 ♂; BURMA, Tenasserim (*Doherty*), 1 ♀ type † in Coll. Druce. *Exp.* 20 millim.

Genus **HEMONIA.**

Type.

Hemonia, Wlk. xxviii. p. 425 (1863) *orbiferana*.
Eurodes, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 12..... *micrommata*.

Proboscis fully developed; palpi upturned, slender, not reaching vertex of head; antennæ of male bipectinate, the apical part serrate; tibiae with the spurs moderate. Fore wing short and broad, the costa highly arched, the apex rounded; vein 2 from middle of cell, curved at base; 3 from angle; 4, 5 stalked; 6, 7 stalked; 8, 9, 10, 11 from cell, 11 connected by a bar with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from towards end of cell.

A. Abdomen and hind wing ochreous *micrommata*.
B. Abdomen and hind wing yellowish white *orbiferana*.

*1190. **Hemonia micrommata.** (Plate XXXIV. fig. 21.)

Eurodes micrommata, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 12.

♀. Head and thorax purplish fuscous; antennæ brownish except towards base; pectus, legs, and abdomen ochreous. Fore wing brown, suffused with purplish fuscous, especially towards costa; a black antemedial line oblique from costa to median nervure, then erect and slightly angled inwards in submedian fold; a small orange discoidal spot; a black line from middle of costa very oblique to below apex, then curved and ending on termen above tornus; the costal area suffused with ochreous towards apex, with an indistinct line across it, angled below apex. Hind wing ochreous.

Hab. N. AUSTRALIA, Port Darwin, type † ♀ in Coll. Turner. *Exp.* 18 millim.

1191. **Hemonia orbiferana.**

Hemonia orbiferana, Wlk. xxviii. p. 426 (1863); Moore, Lep. Ceyl. iii. p. 537, pl. 211. f. 6; Hmps. Moths Ind. ii. p. 91; Kirby, Cat. Het. p. 364.

Pitane rotundata, Snell, Tijd. v. Ent. xxii. p. 90, pl. 10. ff. 6 a-d (1879).

Head and thorax purplish fuscous; pectus, legs, and abdomen pale yellowish. Fore wing purplish fuscous; a black discoidal

point on a fulvous spot; a curved dark line from costa beyond middle to termen above tornus, the area above it more purplish. Hind wing yellowish white, or slightly tinged with fuscous.



Fig. 410.—*Hemonia orbiferana*, ♂. 1.
(From Moths Ind. vol. ii.)

Exp. 20–26 millim.

Hab. SIKHIM (*Dudgeon*), 1 ♀; BHUTÁN (*Dudgeon*), 1 ♂, 1 ♀; CEYLON (*Nietner*, *Templeton*, *Green*), 3 ♀, type; BORNEO, Sarawak (*Wallace*), 3 ♂, 1 ♀.

Genus PAREMONIA, nov.

Type, *P. luteicincta*.

Proboscis small; palpi slight, upturned, not reaching vertex of head; antennae of male bipectinate, serrate towards apex; tibiae with the spurs long. Fore wing short and broad; vein 2 from middle of cell, oblique; 3 from before angle; 4, 5 from angle; 6 from below upper angle; 7, 8 from angle; 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 2 from beyond middle of cell; 3, 4 stalked; 5 absent; 6, 7 stalked; 8 from middle of cell.

*1192. *Paremonia luteicincta*.

Hemonia luteicincta, Holland, *Pysche*, vi. p. 412 (1893).

♂. Orange-yellow. Fore wing slightly suffused with purplish, leaving the costal area from middle and the terminal area orange-yellow; an indistinct dark medial line oblique from costa to middle of cell, where it is angled, then erect and with a yellow patch on its outer side in cell; an oblique sinuous line from costa beyond middle

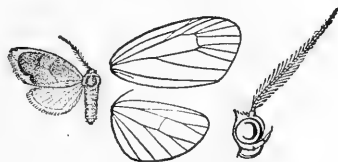


Fig. 411.—*Paremonia luteicincta*, ♂. 2.

to the subterminal line at vein 3, the subterminal line being curved from below costa near apex to vein 3, where it is bent inwards. Hind wing pale yellow.

Hab. W. AFRICA, Ogové R., type ♂ in Coll. Holland. Exp. 16 millim.

ADDENDA, Dec. 20th, 1899.

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SECT. I. Antennæ bipectinate, with short branches; fore wing with vein 6 stalked with 7, 8; hind wing with veins 6, 7 coincident.

*168 a. *Thermeola rhabdophora*. (Plate XXXIV. fig. 20.)

Thallarcha rhabdophora, Turner, Trans. Roy. Soc. S. Austr. 1899, p. 19.

♂. Head, thorax, and abdomen black, the anal tuft ochreous. Fore wing orange-yellow; the costa black towards base; the base of inner margin black; a diffused black fascia from base extending from subcostal nervure to submedian fold, at end of cell narrowing and extending between veins 4 and 6 to the terminal black band, which expands below costa. Hind wing with terminal black band, expanding widely below costa, then narrowing to tornus.

Hab. AUSTRALIA, ? N. S. Wales (*Lyell*), type † ♂ in Coll. Turner. *Exp.* 20 millim.

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173 a. *Lambula obliquilinea*, n. sp. (Plate XXXV. fig. 1.)

♂. Head and thorax dull red-brown; abdomen fuscous, the anal tufts ochreous. Fore wing dull red-brown with obscure oblique dark line just beyond middle. Hind wing pale fuscous brown.

Hab. QUEENSLAND, Brisbane (*Turner*), 1 ♂ type. *Exp.* 20 millim.

173 b. *Lambula agraphia*, n. sp. (Plate XXXV. fig. 17.)

♂. Fore wing with the apex much rounded. Hind wing with very slight tuft of scales at upper end of cell on underside and no fringes on costa. Head, thorax, and fore wing uniform dark reddish fuscous brown; abdomen fuscous, with the anal tufts reddish brown. Hind wing fuscous, suffused with reddish scales on basal half.

Hab. N. GUINEA, Milne Bay (*Meek*), 2 ♂ type. *Exp.* 24 millim.

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489 a. *Josiodes tenuifascia*, n. sp. (Plate XXXV. fig. 4.)

Black; shoulders with orange spot. Fore wing with narrow orange fascia on median nervure extending to just beyond angle of cell; a curved orange band on apical area from below costa to vein 5, its inner edge irregular; a more or less prominent subterminal spot between veins 2 and 3. Hind wing with large orange patch from base or almost from base to beyond the cell extending from just above subcostal nervure to submedian fold.

Hab. BRAZIL, Goyaz (*Birchall*), type † in Mus. Oxon., co-type in Mus. Brit. *Exp.* 30–32 millim.

Flies both by day and night in March.

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SECT. I. Antennæ of male bipectinate, of female serrate.

A. Frons orange.

a. Abdomen with the greater part of claspers of male and the anal tuft of female orange *imitata*.

b. Abdomen of male with the orange not reaching extremity, of female with the anal tuft black above..... *catoxantha*.

B. Frons black *scylla*.

530. *Inopsis imitata*. (Plate XXXV. fig. 10.)

Ctenucha imitata, H. Edwards, Ent. Am. iii. p. 91 (1887); Kirby, Cat. Het. p. 178.

Atolmis flavicollis, Druce, Biol. Centr.-Am., Het. i. p. 132 (part).

Apistostia tiria, Druce, Biol. Centr.-Am., Het. ii. p. 394 (part).

♂. Black, slightly shot with blue; palpi, frons, patches on tegulæ, the coxæ, some hair on femora, ventral surface of abdomen, and greater part of claspers orange.

♀. The whole tegulæ and sometimes the vertex of head orange; femora and greater part of hind tibiæ orange; abdomen with the anal tuft orange.

Hab. MEXICO, 1 ♂ co-type, Guerrero (*H. H. Smith*), 1 ♀, Milpas (*Forrer*), 1 ♀, Godman-Salvin Coll. *Exp.* 36–40 millim.

This may be a variety of *catoxantha*.

530 a. *Inopsis catoxantha*.

Inopsis catoxantha, Feld. Reis. Nov. pl. 106. f. 6 (1874); Kirby, Cat. Het. p. 286.

Apistostia tiria, Druce, Biol. Centr.-Am., Het. ii. p. 394 (1897).

♂. Head and tegulæ orange, the vertex of head usually either black or mixed with black hair; thorax and abdomen black, slightly shot with blue; the coxæ and usually stripes on the femora orange; abdomen with the ventral surface orange except extremity. Fore wing bronze-green or greenish-blue. Hind wing black, slightly shot with blue.

♀. Abdomen with the orange on ventral surface extending to terminal segment.

Hab. MEXICO, 1 ♂, Jalapa, Guerrero (*H. H. Smith*), 1 ♀ type *tiria*. *Exp.* 42 millim.

531 should stand as *Inopsis scylla*, Druce.

♀ like the male, but the orange on ventral surface of abdomen reaches extremity.

Del. abs. 1 & 2.

SECT. II. Antennæ ciliated in both sexes.

A. Femora orange *modulata*.

B. Femora black *metella* (♀).

531 *a. Inopsis modulata*. (Plate XXXV. fig. 14.)

Ctenucha modulata, II. Edw. Pap. iv. p. 14 (1884); Kirby, Cat. Het. p. 178.

♂. Head, tegulae, coxae, femora, and ventral surface of abdomen to near extremity orange-fulvous; antennae black; thorax, abdomen above, and fore wing metallie bronze-green. Hind wing black tinged with blue-green. Underside of fore wing suffused with blue.

♀. Abdomen with the orange extending to extremity on ventral surface.

Hab. MEXICO, Jalapa, Tepic (*Richardson*), 1 ♀, Godman-Salvin Coll. *Exp.* 40-46 millim.

531 *b. Inopsis metella*.

Apistosis metella, Druce, Biol. Centr.-Am., Het. i. p. 121, pl. 12. f. 6 (1885); Kirby, Cat. Het. p. 286.

♀. Head and tegulae orange-fulvous; antennae black; thorax and abdomen dull bronze-green; fore coxae and ventral surface of abdomen orange-fulvous. Fore wing bronze-green. Hind wing black shot with blue; a whitish streak below end of cell.

Hab. GUATEMALA, Capetillo (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 48 millim.

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561 *a. Macaduma nigripuncta*, n. sp. (Plate XXXV. fig. 7.)

♂. Dark brown. Fore wing with small wedge-shaped black spot at upper angle of cell, with two points above it on costa; a postmedial dark line oblique from costa to vein 5, then running to tornus. Hind wing fuscous brown.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 20 millim.

561 *b. Macaduma albata*, n. sp. (Plate XXXV. fig. 23.)

♂. White; frons and fore tibiae and tarsi tinged with fuscous. Fore wing slightly irrorated with brown; the costal edge brown to beyond middle; an antemedial series of points arising from a larger spot on costa and slightly angled outwards on median nervure and vein 1; a punctiform dentate postmedial brown line arising from a small triangular black spot on costa, oblique to vein 4 near termen, angled inwards in submedian fold, and reaching inner margin just before tornus; the excision of apical part of costa black-edged; cilia brown. Hind wing yellowish white; the apical area tinged with fuscous down to vein 2; postmedial and subterminal waved oblique brown lines between veins 4 and 2; cilia brown from apex to vein 2.

Hab. N. GUINEA, Milne Bay (*Meek*), 3 ♂, type. *Exp.* 16 millim.

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574 *a. Darantasia obliqua*, n. sp. (Plate XXXV. fig. 6.)

♀. Head and thorax orange-yellow; antennæ and upperside of fore and mid tibiæ and tarsi black; abdomen black, with the two terminal segments orange-yellow. Fore wing black, shot with purple; the base yellow; a yellow fascia below basal part of costa; a fascia above vein 1 not quite reaching base or termen; an oblique band from just below middle of costa to vein 3 before termen, expanding at upper angle of cell and at lower extremity; a triangular subapical patch from below costa to vein 3, its inner edge excised. Hind wing black, with subquadrate orange patch from below costa to near termen below middle, its inner edge indented in cell.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♀ type. *Exp.* 26 millim.

Page 275.

575 *a. Darantasia punctata*, n. sp. (Plate XXXV. fig. 22.)

♂. Brown; head, tegulæ, patagia, pectus, and legs orange; abdomen black, with lateral orange patches on first two segments, dorsal spots on two subterminal segments, the terminal segment orange. Fore wing with the basal half slightly tinged with blue; the base and short streaks on base of costa and inner margin orange; antemedial spots in cell and below vein 1; medial spots on costa and inner margin; a small spot below end of cell; a postmedial patch on costa conjoined to the postmedial line, which is excurved to termen above tornus, its inner edge diffused. Hind wing with the costa yellow to beyond middle; the termen yellow from vein 2 to tornus; the underside yellow except an apical brown patch; veins 2 and 4 stalked.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 18 millim.

Page 286, for *Caprima* read **CAPRIMIMA**, gen. nov.

602. *Caprima gelida*, Wlk., is a Zygænid, and the species will stand as **Caprimima albicollis**, Pag.

Page 290.

610 *a. Utriculifera aplaga*, n. sp. (Plate XXXV. fig. 3.)

♂. Head and thorax grey tinged with brown; the antennal vesicle blackish; abdomen fuscous, with the lateral and anal tufts ochreous. Fore wing grey tinged with brown; a black point at lower angle of cell; an obscure minutely waved postmedial line, oblique from costa to vein 5, where there is a dark point beyond it, then erect; a terminal series of black points extending just round the apex. Hind wing fuscous brown.

Hab. N. GUINEA, Milne Bay (*Meek*), 2 ♂, type; LOUISIADES, Rossel I. (*Meek*), 1 ♂. *Exp.* 16 millim.

The specimen recorded on p. 290 as *U. fuscapea* from Rossel I. belongs to this species.

Page 324.

*677 *a. Chionæma lunulata*. (Plate XXXV. fig. 12.)

Cyana lunulata, Semp. Schmett. Phil. ii. p. 499, pl. 59. f. 12 (1899).

♂. Head and thorax white; palpi, antennæ, edges of tegulæ

and patagia, and patches on meso- and metathorax scarlet; legs streaked with scarlet; abdomen yellow slightly tinged with scarlet, the ventral surface white. Fore wing white; a small scarlet patch on costa near base, with black point on its outer edge and spots below it, with oblique line to a spot on vein 1 with some scarlet on its inner side; the antemedial black line curved from costa to vein 1, where it is angled inwards, a broad scarlet band beyond it widening to inner margin; a black spot in end of cell and two on discocellulars, the three being conjoined and forming a lunulate mark; an oblique postmedial line bent outwards to costa, with a broad scarlet band on its inner side widening to inner margin, and a white point on costa; a broad terminal orange band slightly tinged with scarlet and narrowing to tornus. Hind wing orange slightly tinged with scarlet. The lobe of fore wing rather large.

♀. Fore wing with the subbasal black line with scarlet on its inner side extending to costa and joining the antemedial line above in margin, this line being angled in submedian fold instead of at vein 1; the scarlet bands narrower and not widening to inner margin; one black spot in end of cell; the postmedial black line excurved just below middle; the terminal orange band strongly angled inwards at vein 6.

Hab. PHILIPPINES, S.E. Mindanao, type † ♂ ♀ in Coll. Semper. *Exp.*, ♂ 32, ♀ 40 millim.

Page 336.

708 *a.* *Holocraspedum paralellum*. (Plate XXXV. fig. 19.)

Holocraspedum paralellum, Semp. Schmett. Phil. ii. p. 505 (1899).

♂. Antennæ serrate and ciliated.

Yellowish white. Fore wing slightly irrorated with dark brown scales, especially on base of costal area; the costal edge black at base; an antemedial erect blackish line with point beyond it in cell; an oblique postmedial line conjoined at middle to a curved line running from apex to lower angle of cell, then out to tornus, its outer edge diffused; cilia dark towards apex. Hind wing with the apical area slightly tinged with fuscous.

Hab. PHILIPPINES, Luzon, 1 ♂ type † in Coll. Semper: N. GUINEA, Milne Bay (*Meek*), 2 ♂. *Exp.* 14 millim.

Page 368.

776 *a.* *Illice xanthospila*, n. sp. (Plate XXXV. fig. 8.)

Brown; palpi except at tips, vertex of head, tegulæ, and patagia crimson; abdomen crimson. Fore wing with orange fascia on inner margin extending to or almost to a postmedial orange spot extending up to vein 2; a postmedial orange spot on costa. Hind wing with the base crimson.

Hab. BRAZIL, Goyaz (*Birchall*), type † in Mus. Oxon., co-type in Mus. Brit. *Exp.* 24 millim.

Page 424.

Genus **TRICHOCEROSIA**, nov.

Type, *T. atrifulva*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons, the 2nd joint fringed with hair; antennæ of male with short branches dilated at extremity, the upperside of shaft clothed with long rough hair; head, thorax, abdomen, femora, and tibiæ clothed with rough hair; the spurs moderate. Fore wing long and narrow, the termen very obliquely curved, the inner margin arched; vein 3 from well before angle of cell, 5 from well above angle; 6 from upper angle; 7, 8 stalked, 9 absent; 10 free; 11 anastomosing with 12. Hind wing with vein 3 from well before angle of cell; 5 from well above angle; 6, 7 strongly stalked; 8 from towards angle of cell.

895 *b. Trichocerosia atrifulva*, n. sp. (Plate XXXV. fig. 11.)

♂. Head, thorax, and abdomen black; patagia with orange spots; tarsi with the first two joints orange. Fore wing black, with orange patch from near base to beyond middle, rounded above and extending nearly to costa. Hind wing orange, with terminal black band broad at costa, narrowing to a point at tornus.

Hab. N. GUINEA, Milne Bay (*Meek*), 3 ♂, type. *Exp.* 26 millim.

Page 429.

906 *a. Asura confina*, n. sp. (Plate XXXV. fig. 2.)

♂. Orange-yellow; antennæ with the branches brown. Fore wing with the costal edge black towards base; a subbasal black patch from subcostal nervure to inner margin, conjoined by a fascia above vein 1 to the very irregular postmedial band, which is angled inwards in discal fold and outwards at veins 6 and 4 and on inner margin. Hind wing with subterminal fuscous wedge-shaped spot below costa, conjoined to another beyond lower angle of cell; a more obscure spot above tornus.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 22 millim.

Page 440.

921 *a. Asura xantherythra*, n. sp. (Plate XXXV. fig. 5.)

Head and thorax sulphur-yellow; palpi, antennæ towards base, and patches on vertex of head, patagia, pro- and metathorax crimson; fore legs crimson and yellow, the end of tibiæ and tarsi black; mid and hind legs yellow, with crimson and fuscous patches at end of tibiæ; abdomen ochreous, the ventral surface tinged with red. Fore wing sulphur-yellow; a crimson spot at base of costa conjoined by a streak on subcostal nervure to the curved antemedial band, which is often conjoined to the medial band by streaks in cell, submedian fold, and on inner margin, the medial band with some dark scales on it and angled outwards in and below cell; the terminal area crimson, with yellow postmedial spots on it on costa and inner margin and subterminal points towards apex, its inner edge angled inwards at veins 6 and 2 where it is conjoined to the medial

band; the postmedial fuscous line diffused, strongly excurved at middle and obsolescent towards costa and inner margin; the sub-terminal line formed of diffused fuscous streaks angled outwards at veins 6 and 4; cilia fuscous. Hind wing yellow, with a slight crimson tinge at apex.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♂, 1 ♀, type. *Exp.* 26 millim.

Page 448.

*942 *a.* ***Asura chypsilon***. (Plate XXXV. fig. 21.)

Mittochrasta chypsilon, Semper, Schmiett. Phil. ii. p. 507, pl. 59. f. 14 (1899).

♂. Head, thorax, and abdomen orange, strongly tinged with scarlet. Fore wing orange, strongly suffused with scarlet to the postmedial line; some fuscous streaks on basal area; an antemedial fuscous line strongly angled outwards in cell to join the incurved medial line; the postmedial line arising from the same point on costa as the medial line, angled outwards at vein 6 where there is a spot beyond it, then oblique to join the medial line at inner margin, some conjoined scarlet streaks beyond it extending on costa to apex and on vein 5 to near termen; a scarlet terminal line. Hind wing yellow, slightly tinged with crimson.

♀. Hind wing pale crimson.

Hab. PHILIPPINES, Mindoro, type + ♂ ♀ in Coll. Semper. *Exp.*, ♂ 24, ♀ 28 millim.

Page 449.

946 *a.* ***Asura dentifera***, n. sp. (Plate XXXV. fig. 18.)

♂. Orange-yellow; abdomen yellowish white, the anal tuft yellow. Fore wing with the costal edge black towards base; a sub-basal black point in cell and streak below the cell to the antemedial line, which is excurved and diffused at middle to join the medial line, which is incurved to meet it; the postmedial line excurved from below costa to vein 3, then oblique to join the medial line at inner margin and with another line forming four acute dentations on its outer edge. Hind wing paler.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 22 millim.

Page 482.

*1025 *a.* ***Mittochrasta obscura***. (Plate XXXV. fig. 20.)

Mittochrasta obscura, Semp. Schmiett. Phil. ii. p. 508, pl. 59. f. 11 (1899).

♀. Head orange; palpi and antennæ tinged with scarlet; thorax orange tinged with scarlet, with fuscous patches on tegulæ, patagia, meso- and metathorax; abdomen fuscous, the ventral surface orange. Fore wing fuscous brown; the costa scarlet; some scarlet at base of median nervure and an orange patch on inner margin; traces of

a diffused scarlet antemedial line with prominent patch on costa; a scarlet-edged orange patch on inner margin just before middle, with spot beyond it and a large spot in and below end of cell; traces of scarlet streaks in terminal interspaces; some scarlet scales on termen and cilia. Hind wing with the basal half orange, the terminal half black.

Hab. PHILIPPINES, S.E. Mindanao, type † ♀ in Coll. Semper. *Exp.* 30 millim.

Page 530.

1137 *a.* *Chamaita metamelæna*, n. sp. (Plate XXXV. fig. 15.)

♂. Head and front of thorax white tinged with fuscous, the metathorax and abdomen fuscous. Fore wing semihyaline white; waved fuscous subbasal, antemedial, and medial lines connected by fuscous on inner margin, and the medial line oblique; traces of a waved subterminal line from costa to vein 3 connected by streaks on the veins, with a terminal series of spots. Hind wing fuscous, with hyaline white from middle of costa to termen extending down to vein 3.

Hab. N. GUINEA, Milne Bay (*Meek*), 2 ♂, 1 ♀, type. *Exp.* 24 millim.

Page 534.

*1143 *a.* *Nudaria punctata*. (Plate XXXV. fig. 16.)

Gampola punctata, Semp. Schmett. Phil. ii. p. 503 (1899).

♂. Fore wing with the cell very narrow, the subcostal and median nervures approximated.

Dull white. Fore wing with subbasal fuscous spot on costa and antemedial bar from costa to median nervure; an obscure streak on vein 1 to a postmedial point on inner margin; spots on termen between veins 3 and 4 and above tornus. Hind wing semihyaline.

Hab. PHILIPPINES, S.E. Mindanao, type † ♂ in Coll. Semper. *Exp.* 24 millim.

Page 557.

Genus **DARANTOIDES**, nov.

Type, *D. rubroflava*.

Proboscis fully developed; palpi porrect, not reaching beyond the frons; antennæ of male ciliated; tibiae with the spurs moderate. Fore wing narrow, the costa arched at middle, the termen obliquely curved, the inner margin arched near base; the upper and lower angles of cell produced and the discocellulars highly angled; veins 2, 3, 4, 5 separate from near lower angle; 6 from below upper angle; 7, 8 from angle; 9 from before angle; 10, 11 from long before angle, free. Hind wing with vein 3 from towards angle of cell; 4, 5 from angle; 6 from well below upper angle; 8 from towards end of cell.

This is the most ancestral genus of *Lithosiæ*, from which all the others may be derived.

1193. *Darantoides rubroflava*, n. sp. (Plate XXXV. fig. 13.)

♂. Head and thorax orange-yellow; antennæ black; tibiæ and tarsi tinged with fuscous above; abdomen blackish suffused with orange, the terminal segment bright orange. Fore wing deep purplish red, with orange fascia on basal part of costa, and streaks on base of median nervure and on vein 1 to beyond middle; an oblique elliptical patch from below middle of costa to above tornus; cilia orange. Hind wing deep purplish red, with orange patch on costa beyond middle and subquadrate patch on termen near tornus extending to origin of vein 2; cilia orange.

Hab. N. GUINEA, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 24 millim.

List of unrecognized Species.

- Avla diversa*, Wlk. vii. 1659 (1856); Kirby, Cat. Het. p. 334.
Type lost.
- Barsine flabelligera*, Saalm. Ber. Senck. Ges. 1879, p. 263; Kirby, Cat. Het. p. 307. Ignotus.
- Comarchis pallida*, Lucas, Proc. R. Soc. Queensl. viii. p. 74 (1891).
,, *gradata*, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1081 (1890); Kirby, Cat. Het. p. 296. Ignotus.
- ,, *irregularis*, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1082; (1890); Kirby, Cat. Het. p. 296. Ignotus.
- Deiopeia detracta*, Wlk. J. Linn. Soc., Zool. iii. p. 186 (1859); Kirby, Cat. Het. p. 307. Type lost.
- Dotha ctenuchoides*, Wlk. xxxi. 259 (1864); Kirby, Cat. Het. p. 340.
Type lost.
- Hectobrocha subnigra*, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1072 (1890); Kirby, Cat. Het. p. 297. Ignotus.
- Lithosia mina*, Guér. Icon. R. Anim., Ins. p. 519 (1844); Kirby, Cat. Het. p. 292. Description insufficient.
- ,, *molybdænalis*, Maassen, Stübel's Reise S. Am., Lep. p. 130, pl. 4. f. 24 (1890); Kirby, Cat. Het. p. 326. Description insufficient.
- ,, *heterocera*, Wlk. xxxi. 226 (1864); Kirby, Cat. Het. p. 318. Type lost.
- ,, *vicaria*, Wlk. xxxi. 226 (1864). Type lost.
- ,, *despecta*, Wlk. Trans. Ent. Soc. (3) i. p. 73 (1862); Kirby, Cat. Het. p. 313. Type lost.
- ,, *sanguinolenta*, Mab. Bull. Soc. Zool. Fr. iii. p. 87 (1878); Kirby, Cat. Het. p. 318. Ignotus.
- ,, *flammea*, Mab. Bull. Soc. Philom. (7) ix. p. 57 (1885); Kirby, Cat. Het. p. 326. Ignotus.
- ,, *pustulata*, Wlgrn. Wien. Ent. Mon. iv. p. 46 (1860); Kirby, Cat. Het. p. 368. Ignotus.
- ,, *albicans*, Wlk. vii. 1682 (1856); Kirby, Cat. Het. p. 322.
Type lost.

- Lithosia nictitans*, Brem. & Grey, Schmett. N. China's, p. 14 (1853); Kirby, Cat. Het. p. 358. Ignotus.
- „ *plana*, Boisd. Voy. Astrolabe, Lép. p. 209 (1832); Kirby, Cat. Het. p. 334. Ignotus.
- Mosoda bancrofti*, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1077 (1890); Kirby, Cat. Het. p. 348. Ignotus.
- „ *lineata*, Lucas, P. Linn. Soc. N. S. W. (2) i. p. 1078 (1890); Kirby, Cat. Het. p. 348. Ignotus.
- Nudaria barnardi*, Lucas, P. Linn. Soc. N. S. W. (2) viii. p. 135 (1893). Ignotus.
- Physetocneme ciliosa*, Feld. Sitz. Akad. Wien, xliii. p. 38 (1861); Kirby, Cat. Het. p. 362. Type lost.
- Pitane erkunum*, Pag. Jahrb. Nass. xxxix. p. 125 (1886); Kirby, Cat. Het. p. 379. Ignotus.
- Sarapus bicolor*, Wlk. iii. 761 (1855); Kirby, Cat. Het. p. 914. Type lost.
- Sarbena conflagens*, Wlk. xxxi. 256 (1864); Kirby, Cat. Het. p. 311. Type lost.
- Setina atroradiella*, Wlk. xxxi. 236 (1864); Kirby, Cat. Het. p. 358. Type lost.
- Tegulata squamata*, Pag. Jahrb. Nassau. xxxix. p. 124 (1886); Kirby, Cat. Het. p. 333. Ignotus.
- Thallarcha aurantiaca*, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1080 (1890); Kirby, Cat. Het. p. 349. Ignotus.
- Tigrioides pulverulenta*, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1069 (1890); Kirby, Cat. Het. p. 341. Ignotus.
- Tineopsis saturata*, Feld. Sitz. Akad. Wien, xliii. p. 37 (1861); Kirby, Cat. Het. p. 300. Type lost.
- Tmetopora phryganoides*, Feld. Reis. Nov. pl. 106. f. 29 (1874); Kirby, Cat. Het. p. 370. Type lost.

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[Synonyms are printed in *italics*.]

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E. RAY LANKESTER,
Director.

British Museum
(Natural History),
Cromwell Road,
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